

Return of the God Hypothesis:
A conversation with Dr. Stephen Meyer

TRANSCRIPT



NOTE: This transcript was AI-generated and has not been fully edited.

[The original audio is available here.](#)

Mark Turman: Welcome to The Denison Forum Podcast. I'm Dr. Mark Turman, your host and executive director of Denison Forum. Denison Forum exists as a place where we can talk about truth, faith, and culture, and how those things intersect and sometimes complement, sometimes are in conflict, with each other.

What we like to say at Denison Forum is that we're seeking to explain the culture to the church to the followers of Christ, like you and me, so that we can redeem the culture by being salt and light, as Jesus said we would be, as we follow him. As I like to say, God is making us "salty bright" for his glory and the good of others. And that's our purpose. That's why we're here today.

We're talking about **the intersection of faith and science**. Some people, 20 years or so, have said that those two things are in conflict and cannot coexist. I think you'll find through our conversation today that's just exactly the opposite.

Today we are having **a conversation with Dr. Stephen Meyer**. Dr. Stephen Meyer has written a book recently called [*Return of the God Hypothesis*](#). He holds a PhD from Cambridge University in the philosophy of science. Today he directs the Center for Science and Culture at Discovery Institute in Seattle. He has authored a number of best-selling books, including [*Darwin's Doubt*](#), [*Signature in the Cell*](#), and the book *Return of the God Hypothesis* that we'll be talking about today.

He's been published in a number of places. You're familiar with the Wall Street Journal the National Post of Canada, USA Today, and the Daily Telegraph. He's also been featured on a number of shows that you're probably familiar with: the Jim Lear News Hour, all of the evening news programs of NBC, ABC, and CBS. He's been on Ben Shapiro's Sunday special as well as Fox News, the Dennis Prager Show, Good Morning America, C-Span, and others

Today we'll be talking about his discoveries and the very beautiful articulation of those discoveries indicate **how science points to the reality of God as the creator of all things, and not just a creator, but a personally involved creator.**

So we're looking forward to the conversation. Thanks for coming along with us. Dr. Meyer, welcome to the Denison Forum Podcast. Would you like to say hello?

Stephen Meyer: Hello to you all in the Denison Forum Podcast. Thanks for having me on.

Mark Turman: Great to have you. And people may or may not be familiar with your work, but you are an extremely accomplished, not only author, but scientist.

And I just want to give a disclaimer at the beginning of our conversation, which is through three different degrees beyond college. The only thing that almost kept me from achieving a college graduation was a science class. So I want you to understand who's on the other side of the conversation here. So if I ask you to stop and define a term or make it in some way more

intelligible, that's where I'm coming from. A geology class almost undid me. I did okay in math. Science was a whole other matter altogether.

If you don't mind, tell us a little bit about you, your story. What's your background? Anything about your faith you want to share? **How did you become a scientist?**

Stephen Meyer: I don't know where to start exactly, but if I start way at the beginning, I was crazy about dinosaurs as a child. I think that when I was four, my grandmother sent me a great big fat book about dinosaurs. It was a college textbook at New York University. And I don't think I understood all the things in the book, but I sure liked the pictures. I'd bury chicken bones in the backyard and then dig them up later to pretend I was a paleontologist, that's the right thing.

My sister loves telling a story about me when I think I was about 10 years old. The other kids were having lemonade stands out on the street in front of their homes. And I put out a bug collection with different insects pinned onto a little corkboard with their Latin names written out, and I was apparently crestfallen when no one wanted to pay 10 cents to see my bug collection. And she falls off her chair telling this story about her nerd brother.

But when I got to university college, I went to what was called Whitworth College then. It's now Whitworth University. **I majored in physics and geology and also took a minor in philosophy and was always interested in natural history**, for sure, but also the big questions at the intersection between science and philosophy. And natural history raises some of those questions.

How did we all get here? How did life get here? Where did those fascinating trilobites and dinosaurs and prehistoric fishes come from?

And I finished college right as there was a kind of oil boom going on in Texas. I was from the Northwest, never been to Texas, and ended up getting a job as an exploration geophysicist for one of the major oil companies at the time. I was initially working in a field of seismic digital signal processing, which was an early form of information technology.

Oddly, that led me into an interest in the origin of life because three or four years into my career, **a very fascinating conference came to Dallas** where I was working that featured scientists and philosophers who were discussing the big questions at the intersection of science and philosophy, the origin of the universe, the origin of life, and the origin and nature of human consciousness.

And the conference was divided in each panel. Each panel divided participants on one side who were materialist, atheist, agnostic in their worldview, and on the other theists in their worldview, and had the big discussion about which worldview really makes sense, better sense, of the scientific evidence that were at that time being discovered. This was in the late 1980s.

In any case, I was really fascinated with this discussion. I attended the conference, just heard about it from a friend, and **the discussion about the origin of the universe was particularly fascinating because one of the great astrophysicists in the country, Allan Sandage, announced for the first time his public conversion from a secular agnostic position.**

He was a secular Jewish scientist, who was a kind of hard-bitten scientific materialist, and announced that he had become a believing Christian.

And in his talk went on to explain how the scientific evidence pointing to a definite beginning to the universe confirmed the reality of a creation event that got him thinking about deeper metaphysical matters and how you could explain the origin of the universe from, well, he realized you couldn't explain it materialistically because matter and energy were the very things that had come into existence and before that there was no matter to do the causing.

And I remember him looking into the camera and I saw the footage later saying, you know, kind of grizzled, a fellow who'd really obviously been wrestling with these deep questions. And he said this can only be described as a supernatural event. There is no way that this evidence for the beginning could have been predicted within the realm of physics as we know it.

And there were several other astrophysicists on the panel Owen Gingerich who just died this week and had a fascinating, very [wonderful obituary in the New York Times](#), Harvard

professor, who had given a lecture the night before the conference started on the convergence of the Genesis account and Big Bang Cosmology, that both were affirming that the universe had a beginning and both affirmed that, soon after the beginning, there was a gigantic coruscation of light that would then permeate the universe as a whole. And he saw a number of these convergences of testimony.

Another scientist there was Robert Jastrow, who had just written a book called [*God and the Astronomers*](#). And on the other side of the panel, it was Carl Sagan's science advisor, Donald Goldsmith, who was a staunch scientific materialist.

So it was a fascinating discussion, but it appeared to me that the theists had the intellectual initiative in the discussion. The evidence seemed to favor their view more than that of the materialists. And having studied at a fairly small Christian college, I had the kind of intellectual insecurity that many young people have going through colleges that are known to be religious and small, but a bit outside of the academic mainstream, and so I was just really intrigued that the highest levels of science, the evidence seemed to be running in a theistic direction.

And then there were yet other discussions about the origin of life in the next panel. And there was another extraordinary intellectual conversion announced with a leading chemical evolutionary theorist. Those are theorists who attempt to explain how the first cell comes from the simple chemicals in a prebiotic soup or prebiotic ocean. And we all learn about this in our science classes.

And this scientist **Dean Kenyon announced that he no longer accepted chemical evolutionary theory**. And that was extraordinary because he and his co-author Gary Steinman had authored the best-selling advanced-level graduate text on, the book was called [*Biochemical Predestination*](#). It was precisely about how allegedly the first life could have arisen as the result of undirected chemical processes. And at the conference, he announced instead that he thought that the evidence for intelligent, and intelligent cause was how he put it, from the complexity of the cell and the information stored in DNA seemed to point towards an intelligent cause.

And then it was time for the theologians and philosophers to reopen the natural theological question. What can nature tell us about God? Quite a lot, he intimated, and so this was equally extraordinary.

And it happens that **in the aftermath of the conference, a friend introduced me to one of the other panelists who had spoken about the origin of life. He was a scientist who'd written a book called [The Mystery of Life's Origin](#), Charles Thaxton.** We became friends. He mentored me over the next year or so. **And a year later, I was off to do a PhD on origin of life.** Initially a master's degree and then later a PhD on origin of life biology. I became fascinated with this topic after I finished the PhD in 1990.

I taught for 12 years at Whitworth University, where I had been an undergraduate during that time. My ideas, my thoughts about intelligent design and the whole question of the origin of life had a lot of time to percolate and germinate, and it took me quite a while but in 2009 I finally produced my first book on this, and that was [Signature in the Cell](#).

Mark Turman: Sounds like that conference was not a showstopper on one accord, but maybe on three levels, it was a showstopper.

Stephen Meyer: The discussion is extraordinary. We've recovered some of the footage recently, and it was everything I remembered it to be. But for me, it was a pivot point in my life because I'd enjoyed the work of the oil company.

The work on signal processing was, in a strange way, a connection to what I was learning about because the origin-of-life people were saying that the unsolved problem is the origin of information. DNA contains literally digital code. Bill Gates says DNA is like a software program but much more complex than any we've ever created.

I came across that quote many years later, but it's highly suggestive because it suggests that **if software comes from a programmer, maybe DNA resulted from a master programmer.** Several of the panelists at this conference were suggesting as much, and I got fascinated with that because, with my own exposure to information technology, **I thought it was just an extraordinary thing that this huge question, perennial question, going back millennia,**

—how did life begin—turned on the question of the origin of information, the origin of code.

And the chemical evolutionary theorists were acknowledging they had no idea how we got from undirected chemistry to literally code. So I got fascinated with that, and my background was just relevant enough that I had a little toehold in the discussion and then I went to town, did my homework, and started to have long conversations with Dr. Thaxton initially and eventually went to the UK to do my PhD on that topic. So it's been a fascination for many years.

Mark Turman: I want to come back to that conversation about code and DNA in a moment. I'll have to admit to you, I'm resisting the urge to just say explain the dinosaurs because of where you started and because of a five-year-old granddaughter who's already asked me that question in the last couple of months.

What about the dinosaurs? Where did they come from?

Stephen Meyer: My three-year-old grandson is fascinated and has been teaching me the names of dinosaurs I never heard of, perfectly pronounced, and so people often ask me, “These were scary creatures. Why would God have created dinosaurs?”

And my answer is very simple: for the endless fascination of three-year-old and four-year-old boys millions of years later. And it sounds like five-year-old girls as well.

Mark Turman: And a whole bunch of parents and grandparents who take them to see movies.

Stephen Meyer: Movies and museums. O'Hare airport, which has that tremendous replica of the brachiosaurus.

Mark Turman: Even where I live north of Dallas, we have an interactive outdoor museum full of dinosaurs. We have dinosaur week all through the summer.

Stephen Meyer: They're awesome. They're awesome

15:24 Mark Turman: So the God hypothesis, if I understand where you're starting from, is this idea that, within science, the idea of being a theist, that there is a divine source, deism as a comparative would say that God is real and he started everything, but he's not involved.

Being a theist means that you hold that there is a God who is the source of all things and that he is intimately involved in his creation. Do I have it summarized correctly?

Stephen Meyer: Yeah, that's a good summary. Theism holds that there is a transcendent creator, a creator separate from the universe who is powerful and intelligent and also active in the creation, both in upholding the laws of nature on an ongoing basis, but also active episodically in acting as an agent within the creation that he otherwise sustains and upholds either to create specific forms of life, for example, or to perform specific acts of redemption for the human race. This would be a biblical form of theism, which would see God as active in human history, speaking to mankind, performing what we call miracles or acts of God in a discreet and discernible fashion against the backdrop of his ordinary action and upholding the laws of nature. So that'd be a biblical worldview, or certainly a theistic worldview, but the Bible affirms a theistic worldview.

Mark Turman: If I understand this book, and to a degree your two previous works as well, they are something of an answer to the work of what are sometimes called or referred to as the New Atheists. I think if you walked up to a typical person in our country today, you would hear them espouse the ideas of Richard Dawkins, Peter Singer, Christopher Hitchens, and others who have been deeply influenced, perhaps by 100 or more years around the thinking of Darwin's evolutionary theory, Marxist economic theories and social theories, Freudian and Nietzsche theories. And we've grown up, at least in the years that I've been alive, with the idea that those are the authorities and that their ideas about the origins of man, the universe, the cosmology, that those are the absolute truths that no one can question. Is your work in many ways a response and an answer to that?

Stephen Meyer: I think it is a response and an answer to that, but I'd like to put the description of what the book does in a little broader context is that there's a storyline that I develop. I don't really develop it. I report it. Many, there are many powerful voices in the culture today, Dawkins, Lawrence Krauss, the late Stephen Hawking, the late Stephen Weinberg the other New Atheist authors that you mentioned, Bill Nye, the science guy, right down to the popularizers who are telling us, and speaking putatively, very authoritatively,

saying that science properly understood undermines belief in God, or at least renders it completely unnecessary as an explanatory postulate or proposition. We can explain how everything got here by undirected, unguided natural forces, and we don't need to consider the possibility of an external creator or intelligent agent or designer of any kind. This view became, I think, ascendant in the late 19th century as the result of figures like Darwin, also Marx and Freud who were working out other implications of that materialist creation story that Darwin advanced.

But other figures as well, the philosopher Nietzsche who famously said that God is dead. The early evolutionary biologists like Berns Heckle and Thomas Henry Huxley, who are staunch scientific materialists as well. So there was a kind of revolution in thought in late 19th century that that brought what scholars call a materialistic or naturalistic worldview into prominence within the academy and eventually into in the culture.

That's the middle of the story, if you will, because **science doesn't start with that materialistic or atheistic perspective. It starts in a decidedly Christian milieu** where the leading scientific figures who are responsible for what historians of science call the scientific revolution are almost to a person, almost to a man, because at that time, it was almost all men in the sciences. They're **almost all of these men were devout Christians. And they were all theists, and they began what we call modern science for decidedly theistic, indeed, even biblical reasons.**

Mark Turman: Can you give us a framework of, okay, are we talking 200 or 2000 years ago when we talk about the scientific?

Stephen Meyer: Yeah, great question. The scientific revolution is variously dated at between 1500 and 1750 or now I think a number of historians would place the origins of that back a bit further into the late Catholic Middle Ages. There's both a distinctively Catholic, Jewish, and and Reformed Protestant contribution to the scientific revolution. But in that period of time there are key figures. There are philosophers at Oxford, one named Robert Grostest, who develops a method of isolating variables and has a kind of scientific methodology. But then you get figures like Kepler, Copernicus, Kepler, Boyle, Robert Boyle, the great chemist, Galileo, Newton, and whereas Galileo had a bit of trouble with the church, most of that was actually over Aristotelian, not biblical ideas, but **almost all of these figures were devout**

Christians, and they were pursuing an investigation of the natural world for specifically biblical reasons. The great historian of science, Rodney Stark, who was out here at the University of Washington at the time, then at Baylor, wrote a wonderful book published with Princeton University Press called *For the Glory of God*, and this was his account of the scientific revolution. Why were they doing it? Why were they studying nature systematically in a way that had never been done before? They were doing it for the glory of God.

And there was a key idea that was especially generative for this thinking about nature. And that was **the idea of intelligibility**. These scientists believe that nature was intelligible. It could be understood by the human mind. It had a rational order that could be understood because we could know it and understand it. We could know it and understand it because it had been made by a rational creator. **And that same rational creator who built rationality and design and order into the natural world had made our minds in such a way that we could understand the rational order that he had built, that our minds are in a sense attuned to the rationality of the creation. And this is what made science possible.**

This is one of the primary motivations was this conviction in the intelligibility of nature. And so this is what lay behind some of the metaphors the early scientists use. They talk about the laws of nature. There were laws because there was a lawgiver, there was a divine, a person who maintained nature on an orderly concourse. They had the metaphor of the book, or two books, there was the book of Scripture through which God revealed himself. But because nature was intelligible, it could be read and understood by humans beings and therefore there was also a book of nature and so anyway this is where the story starts.

It starts with science arising in a Christian context. That is largely that context is largely lost or rejected by scientists and social thinkers like Freud and Marx in the late 19th century, early 20th century. That materialistic worldview that replaces the theistic framework for science dominates thinking in the elite knowledge culture in the media, the law schools, the courts, the science laboratories, et cetera during the 20th century. But **the argument in my book** is that there have, over the last 100 years, though, the cultural influence and pervasive influence of materialism has been very dominant, **there have been major scientific discoveries that have been made that, upon reflection, are now leading many scientists and philosophers to reconsider the God hypothesis.** And that's the reason for the title of the book.

So it's in a sense what the movie people call a rise, fall, rise plot structure. We have Christianity giving rise to modern science. Christianity and theism generally being rejected in the late 19th century by leading intellectuals. But now that theistic perspective is coming back, not in spite of, but because of discoveries about scientific discoveries, specifically about the origin of the universe and the origin of life and other origins questions.

26:07 Mark Turman: And I want to get to those three discoveries because the fundamental idea here is that we're coming back around to something that was at the very core of the scientific revolution, dating that back somewhere between four and eight hundred years, roughly, but parallel to the Protestant Reformation, parallel to some other things, but roughly four to eight hundred years ago, where we would mark the beginning of what we understand to be or call modern science.

But that in the last 150 years or so, we have adopted and popularized a completely different way of looking at the world, a materialistic world or materialistic theory that says that nature can explain itself. Without the presence of a God of any kind. And when we're using the word theist, we're saying we can't necessarily tell you everything that the Bible would necessarily tell us about the nature of God and the person of God.

This particular question is about the presence of God and the creative as you said, interpersonal activity of God in the creation and the sustaining of all things. Am I tracking with

Stephen Meyer: you? That was all very well said, Mark. The when scholars talk about worldviews the German word was Weltanschauung.

And, but it's, the idea of a worldview is A default philosophy that someone may have, whether they know it or not. It's a kind of the set of assumptions they bring to make sense of the world around them. And the most fundamental worldview question is the question of origins. What is the thing? or the entity or the process from which everything else comes.

And Judeo Christian theists had always affirmed that the prime reality, the thing from which everything else comes is a personal God, a God with certain types of attributes wisdom, power, creativity, and a God who is active and involved in the creation as opposed to a deistic

creator, the materialistic or naturalistic worldview that came into dominance in the late 19th century, early 20th century, especially among intellectuals.

Affirms that matter and energy are the thing from which everything else came. They are eternal and self-existent and therefore do not require an external creator to account for their origin because they've always been here in the same way that theists would say that God has always been here.

God is eternal. Self-existent and that those material things that matter and energy arranged or ordered or organized itself to produce all the things that we see in the universe, including all the fascinating life forms we have here on planet Earth. Of course, the Darwinian processes of natural selection and random mutation or random variation play a role in that materialistic narrative, a very important role, because that's the undirected material process.

That is allegedly responsible for the origin of new forms of life. Yeah, so there's two competing meta-narratives about where we came from and what ultimate reality

Mark Turman: consists of. Okay, so as we get into talking about these three discoveries that your book very beautifully contends are actually pointing us to God, not away from the reality of God, but set the stage as us.

a non-scientific person like me or someone else listening to this. Explain for just a moment that in the world of science, that there are these four fundamentals that are essential to everything. Matter, energy, time, and space.

Stephen Meyer: Describe that for a moment. Yeah. If you're doing physics, you've got different kinds of fundamental variables or parameters or entities.

And we analyze physicists, analyze motions of material objects in space over time. But they, whether they, when they look at material objects, obviously they are made of something they're made of stuff. And ultimately. Physicists would say elementary particles, quarks, electrons, protons, neutrons, and the like.

So there's a material part of reality, but material things exist within space and and And and change their positions and motions over time. And the other element is energy, which is that

thing which produces motive force or which produces motion. And we, we dig it up out of the ground.

If we live in the, we're out in Texas in the. And looking in the, the oil shale where we're trying to get at some energy, so we're all familiar with substances that contain energy that we can harness. But physicists think about matter in motion. Energy is the thing that produces the motion in the matter and the motion occur within space and time.

So those are we think about the universe and we think about the origin of the universe itself. Most physicists think about the origin of those four domains, matter, space, time, and energy

Mark Turman: should Christians boycott is Christian nationalism, biblical should Christians send their kids to public school.

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Now moving in and talk about these discoveries. The first one of these that you unpack for us is Has to do with the beginning of all things. And immediately, I think people's minds go to the issue of the Big Bang. How to, is the Big Bang theory in opposition to the story we might read in the Bible, in the book of Genesis?

Is it possible that they are complementary narratives that we don't have to choose between as Christ's followers? What are you trying to help us understand about the discovery of the beginning of all things?

Stephen Meyer: We can get to the question of how the discovery that the universe had a beginning relates to a biblical account of creation a bit later, but the story itself is a scientific one that's absolutely fascinating.

It begins in the 19 teens and 20s as the astronomers are looking at structures in the night sky called nebula that they weren't exactly sure what to make of. Some thought the nebula were stars with gaseous material around them. Others thought the nebula were... Possibly other galaxies beyond our Milky Way and in the 1920s, Edwin Hubble using new big domed

telescopes and new photographic plate technology and some new tech, new techniques for measuring distances to astronomical objects was able to determine that the nebula were in fact other galaxies and further that the, these other galaxies were moving away from us.

And that the further out in space they were, the faster they were moving away which enabled him to depict the cosmos as a whole in, as something roughly like a giant balloon being blown up over time. And that was extremely suggestive because it implied yet another. Discovery, the universe is moving outward in the forward direction of time, then in the reverse direction of time, it would have been smaller and smaller.

And eventually, however far back you go, you will reach a place where all the galactic material, which is presently moving away from itself, would have been converging towards a common point past which you could not back extrapolate. And that point We don't know where it was, but wherever it was, that point marked the beginning of the expansion of the universe, and arguably the beginning of the universe itself.

Because again, you can't back extrapolate past that point where everything converges. So it looked from the discoveries in astrophysics in the 1920s, as if the universe was expanding outward from a creation event. And whatever we make of the the relationship between the Genesis story and this discovery, I can tell you that the leading physicists of the day did not like this conclusion precisely because they saw it as providing Testimony, convergent testimony with the biblical record, Einstein thought that Lemaitre, the great Belgian priest who first formulated the the big bang theory had done so on the basis of the Christian doctrine of creation.

And Lemaitre fired back and said, no, it's you who are reasoning from a set of philosophical presuppositions. I'm just following the evidence where it leads and it leads to a beginning. Lemaitre actually thought that he should keep his science and his religious beliefs completely separate. But the atheist physicist or the secular physicist.

Saw a very significant point of agreement between the two, both affirmed the beginning in particular Einstein, and I tell this story in the book is a fascinating story, Einstein's own theory of general relativity, his theory of gravity imply that there must be a countervailing force pushing outward.

Causing the expansion of the universe outward from a beginning, but he famously gerrymandered his own equations to obscure that conclusion in order to maintain the concept of a static eternal universe that did not require a beginning or an external creator. In 1931, however, he went out to The Palomar Observatory at Mount Wilson met with Edwin Hubble, looked through the telescope.

Two weeks later, he gave an interview to the New York Times affirming that Hubble and his colleague Humason had in fact shown that the universe was not static. It was dynamic and expanding. There was a beginning and he later said that his attempt to avoid that conclusion was the greatest blunder of his life.

But this, there's been a consistent pattern of physicists or astrophysicists who have are of a materialistic mindset trying to find a way to circumvent the conclusions of the Big Bang because they see it providing support for. Certainly at least a theistic worldview, if not a if not the testimony of the Bible itself.

Mark Turman: And if I understand your work correctly this area, we are all familiar with the name Hubble relative to telescope and but all of this is really about the study and discovery of light and how light is moving through the universe as it. Relates to the expansion of the universe pointing backward to this beginning.

Correct? Yeah, absolutely.

Stephen Meyer: In fact several different modes of analyzing electromagnetic radiation have confirmed this conclusion that the universe had a beginning. The first was, as you mentioned, the study of the light coming from those distant nebular structures, those distant galaxies. What hubble realized was that.

That the light coming from those galaxies was redder than it should otherwise look. If you shine light through a prism, it will separate into the different colors of the rainbow, red to violet. The violet light is very short wavelengths. The red light has longer wavelengths. If an object is receding away from us, The light coming from it will shift in this in spectral analysis towards the red end of the electromagnetic spectrum.

It will look redder than it usually would look. And the, and the light coming from the distant galaxies was. Almost without exception, red shifted in every quadrant of the night sky, suggesting that all of the galaxies were moving away and the ones that, as I said, that were further out, we're moving away faster.

There was more red shift associated with them. And the only way to account for that was something like. A spherical expansion of the universe as a whole. And so that, that bit of light helped us establish an expanding universe outward from the beginning. Later there was another form of radiation discovered called the cosmic background radiation, which wa was, is outside the visible spectrum, but it's a very low.

It has a very low temperature equivalent. It's a kind of a background hum that's out in the space and the scientists who discovered this was the existence of this radiation was thought to be a consequence. Of the big bang theory. If the big bang theory is true, you'd expect to find this cosmic background radiation.

And the idea was that based on the big bang, we would expect that shortly after the creation of the universe, the matter and energy of the universe would be, would have been glumped into a tight space and then as space expanded driving the expansion of the universe, matter and energy would spread out, would dissipate throughout the rest of the universe.

But in that process, the That the what was initially a very hot form of radiation would cool and have a particular kind of what's called a black body signature. And so some scientists actually found that in the 1960s. And this, they got the Nobel prize for it. Robert Wilson and Arno Penzias theist, a Jewish theist scientist later said that the evidence that we have concerning the big bang is exactly what I would have predicted if I had nothing to go on.

But the first five books of Moses, the Psalms and the Bible as a whole in the Psalms, it actually. And in some of the Hebrew prophets there are multiple references to God stretching out the heavens or having stretched out the heavens and both of those things are true. The heavens have been stretched out in the past tense and continue to be stretched out as the expansion of the universe.

Proceeds a pace moving in the forward direction of time.

Mark Turman: So he continues to make his declaration even louder.

Stephen Meyer: There is an extraordinary convergence of testimony about between modern cosmology and the biblical record.

Mark Turman: All right. Let's move on to the second discovery, which is related to this digital code.

We all live in a computer environment and an information age. Which is where I connected this. A few years ago, just gonna tell you a little story. I had a really great friend, really smart guy in my church. Financial analyst advisor. Who said, I just need some answers. I need answers about dinosaurs.

And he handed me, after reading, he handed me Francis Collins book, [*The Language of God*](#). And there was so much about that book that went completely over my understanding, but coming to this idea that you explain in your book about how DNA actually carries an alphabet or a numeric code that builds other things.

Can you unpack that a little bit for us?

Stephen Meyer: Absolutely. One of the great discoveries of modern science also happens in the 20th century, a little bit after the Hubble Einstein episode in the 20s and 30s. In the early 1950s, late 40s, 1950s, people working in biology that we would probably now call molecular biologists, they didn't have that term at that point, but people Biologists are increasingly of the opinion that a molecule known as deoxyribonucleic acid has something to do with the transmission of hereditary traits.

It's been a mystery back to ancient times. The Greeks wondered about this. Why does beget like? Why are children like their parents? Why are offspring like like the parents and there must be some sort of signal trans transmitted, some kind of information, something In the early 50s, Watson and Crick came together, an unlikely pair.

Crick was a mid 30s PhD student in the field of physics. He wasn't even a biologist. Watson was a precocious 23 year old American who came to Cambridge to work. To do a postdoctoral study, and they, these two of them teamed up to see if they could crack this

ultimate mystery, this kind of holy grail of biological research, and they were enabled, were in fact able to formulate a model of the structure of the DNA molecule.

They published it in a brilliant short. Scientific article, 900 words, the length of a standard newspaper op ed and they published it in nature on April 25th, 1953. And it really sent shockwaves through the scientific community. And they saw in the initial structure of the DNA, the potential for information storage.

But they didn't elucidate that in a lot of detail. In 1957, Crick, building on this earlier work, published something called the Sequence Hypothesis. And he, what he explained was that along the interior of the spine of the double helix, there are these chemical subunits called bases or nucleotide bases.

And these chemical subunits... He postulated are carrying information. As a result of their sequential arrangement, they're functioning, he argued, like alphabetic characters in a written text, or the digital characters we use in software today, the zeros and ones. And many scientists have described the function of the basis as alphabetic or typographic.

Or digital. Leroy Hood, famous biotechnologist here in our area, simply says DNA contains digital code. That's what it does now. That was really the to me, the even more significant discovery. It's a stop press moment in the history of biology, the history of science, I think, in the history of the human race, because what we learn is that in addition to matter and energy, space and time, there's An additional fundamental element to reality and that's information and it's crucial to understanding how hereditary transmit trait hereditary traits are transmitted in particular, though, what Crick realized is that.

Within the structure of the DNA molecule, there was a process of gene expression where the information in DNA was directing the construction of proteins, where proteins are the essential Tools in the cells toolbox, just as in a toolbox in your garage, you will have a hammer, a wrench, a saw where each one of those tools will perform a different job based on their shape in the biological world, there are these intricately shaped molecules.

Complex and intricately shaped molecules called proteins, and they do all the important jobs in the cells, they catalyze, there are enzyme proteins that catalyze metabolic reactions at super

fast rates that otherwise wouldn't occur there are Proteins for processing the information on the DNA molecule.

There are proteins for building little miniature machines that we're discovering in cells. Turbines for building energy, and rotary engines, and sliding clamps, and little robotic walking motor proteins that tow vesicles of material down Structures that are functioning like railroad tracks that what we've discovered is that the simple cell isn't simple at all.

It is something like an automated. Factory and that the crucial machinery that carries out the jobs inside this factory are made of the miniature machines that do these jobs are made of proteins and that takes us back to Francis Crick, the information for building the proteins is stored in the DNA molecule,

Mark Turman: which, which I can remember as a young Christian in my late teens.

My pastor saying it doesn't matter if you look through a telescope or a microscope, you can see the fingerprint of God, you can see his hands because as we would say, and as you said earlier, whether if it's your computer and you want your computer to do something new, there has to be new information.

There has to be new code that is given to the computer. Your computer doesn't make up code on its own. And that it points immediately, directly to a programmer, to someone who is creating that code. Correct. That, that,

Stephen Meyer: that's the argument in the thumb thumbnail version that I've developed in Signature in the Cell.

Whenever we see let's go back to the Bill Gates quote. He says that the the D n A can, the the d n a has information in it and but much more complex. DNA is like a software program, but much more complex than any we've ever created. Richard Dawkins, the staunch scientific atheist, has said that DNA is like a machine code, and that the pages of a molecular biology journal could be, interchanged.

With pages from a computer engineering journal that you're seeing the same sort of information technology. It's not just the presence of the code itself. It's that the DNA

molecule is part of a complex information storage transmission and processing system that rivals. Our own high tech digital information processing systems in our computer world it rivals and exceeds it in its complexity, but it it utilizes many of the same design patterns strategies for processing digital information that computer engineers have only recently developed.

So we're seeing all the hallmarks of an exquisitely designed information processing and storage and processing system. But inside the living cell, and of course, it then does raise the origins question. How did it get here? And I've argued that the best explanation by far, the one that is consistent with our knowledge of cause and effect, our uniform and repeated experience about how the world works, which is the basis of all scientific reasoning, shows that whenever we see information, especially in a digital or alphabetic form, and we trace it back to its ultimate source, Whether we're talking about information, a paragraph in a book, or maybe a hieroglyphic inscription, or the information in computer code, or even information embedded in a radio signal we always find that information ultimately issues from a mind, not a material process.

So the discovery of information at the foundation of life in the DNA molecule and some of the other large information carrying biomacromolecules like RNA and you could even argue that protein is an information carrying molecule that the presence of information at that level in life at that foundational level is a strong indicator of the activity of a prior intelligent agent.

And that's, that is the argument from intelligent design based on biology

Mark Turman: or one of them and starts to point in some way in my mind to the idea of not just a power or a source a being that can create these things, but one who is personal from the standpoint of, if you understand communication as being personal in that way that the very essence of relationship is communicating and you can see that on even the smallest molecular level.

Stephen Meyer: There's an amazing sorry to interrupt Mark, there's a very elite level information theorist named a world class guy named Hubert Yockey. He may have passed away, but I had some encounters with him when I was first becoming interested in this in the eighties and nineties. And he said that if you analyze the information storage transmission

DNA, from the standpoint of modern information and communication theory, what appears to be the case is that all the elements of modern communications.

Systems information based communication systems were present in life beginning 3.85 billion years ago, that these systems were invented long before we finally invented them after the late 1940s with Claude Shannon and Weaver and Von Neumann and all these geniuses who brought brought us into the computer world and the information world and the information revolution.

Mark Turman: And what may have been the case is that we weren't inventing anything. We were just discovering things that were already here

Stephen Meyer: and new ways to use them. I think what's interesting is that we, these leading figures did invent things that no one in the human race knew about. We didn't know.

Shannon develops a theory of information and von Neumann developed a Theory of self replicating a ton of automata he was, his insights were crucial for developing computer technology software engineers have been developing various kinds of what are called design patterns, which are unique ways of storing or transmission, transmitting digital information, but then when we do a look back, At what's in the cell and we start to look at it with the benefit of our understanding of what, how you actually build and store and transmit digital information, how you do, for example, automated error correction, you find all these same design patterns.

At work inside the living cell, but we know we did not invent that but but we have these hallmarks of inventiveness, this hallmark, a hallmarks of intelligent activity. The great information theorist who first applied a lot of information theory and information theoretic modes of analysis to molecular biology, Henry Quastler.

Quoted as saying that the creation of new information is habitually associated with conscious activity. It's highly suggested. If we then what should we infer then if we see if we see information. Embedded in molecules inside living cells the only known cause of that type of information is conscious activity, and therefore we can infer the cause from the effect.

Mark Turman: So in, in your third argument relative to intelligent design, we get to the issue of. What is sometimes referred to what you refer to as the problem of fine tuning and This was just fascinating to me. Just the that you get into areas of probability and improbability here so explain a little bit about what the topic or the if it is a problem Of what fine tuning really brings to the table in this conversation?

Most of

Stephen Meyer: your Listeners, I think, would remember the story of the three little bears and the porridge that was not too hot. Not too cold, but just

Mark Turman: Yeah. I appreciate you giving a chapter in here called the Goldilocks

Stephen Meyer: This isn't original with me. Many of the leading physicists are talking about our universe as a Goldilocks universe.

There are, but instead of just The porridge, there are many parameters, fundamental parameters in physics that are necessary to understand how the universe works and are also, and that also need to be quote, unquote, fine tuned in order to make life possible. So for example, There's four fundamental forces in physics, the gravitational force, the electromagnetic force, and two other forces called the strong and weak nuclear force.

Each of these forces has to fall within very narrow ranges or tolerances. In order to make life possible outside of which if the gravity were a little bit stronger, a little bit weaker by a smidge and the smidge, it has a number to it as well. I think 1 part in 10 to the 35th power then we would not be able to form carbon and there would be no life in the universe.

The electromagnetic force is similarly finally tuned. The ratio between them turns out to be incredibly important and finally tuned. The masses of the elementary particles, the mass of the quark, has to be finely tuned. And for multiple reasons the speed of light turns out to be really important. So you have all these different, the force causing the expansion of the universe, called the cosmological constant.

The original, the initial condition of matter and energy, the arrangement of matter and energy at the very beginning is just after or at the point of the Big Bang, turns out to be exquisitely

finely tuned. So you have all these parameters, each one of which singly is some, many of which all by themselves.

Are so finely tuned as to raise a question. It's the probability of getting even one of these parameters is often off the charts. Mind boggling. Not the kind of thing you'd expect to have occurred by chance. Let's say that. But the cumulative effect of all of them the many of these parameters are independent, probabilistically independent of each other.

So the improbabilities multiply. And so this is, physicists have asked each other what do you make of this? And some of the physicists who were themselves. fairly staunch scientific materialists have changed their worldview as a result of this discovery. Fred Hoyle, in particular, discovered some of the most important fine tuning parameters necessary to account for the abundance of carbon in our universe.

And as a result of that, changed from being an aggressive scientific materialist who in fact rejected the Big Bang Theory because he thought it provided too much aid and comfort to theists and seemed to support the biblical creation story ended up reversing and later was quoted as saying that the the fine tuning evidence suggests that a super intellect has monkeyed with physics and chemistry in order to make life possible.

And I always to point out that the monkeys have a way of making it into these origins stories, these stories always, whether they're typing in a typewriter or whether they're the thing that the organisms from which we were supposedly evolved, you always got monkeys in it. But in this case, Somebody monkeyed with the physics to make life possible.

A super intellect. He says,

Mark Turman: you never know if you can attribute that to Darwin or not when it comes to the monkeys being in every one of these conversations. Yeah, exactly.

Stephen Meyer: But in any case with Hoyle the idea is that there was a super mind, a super intellect that is needed to explain the universe, the fine tuning suggests a super intellect fine tuner.

Mark Turman: And if I understood you correctly in your work, you said that There's multiple multiple parameters, not just one or two, but they're just multiple parameters, right? And if even one of those was off by this smidge, one of two things would happen. Either the entire universe would collapse on itself.

Or it would burn up, correct?

Stephen Meyer: That's with respect to certain of the fine tuning parameters. If we don't get the cosmological constant right and that's fine tuned to one part in 10 to the 90th power, that's the fundamental force driving the explosion. Expansion of the universe. So if we don't get that we either live in a black hole where actually nobody lives because all that exists is a black hole or we have a heat death, the universe where all the matter and energy dissipates so quickly and so and is so far flung that we don't have any potential for life.

In fact, with many of these parameters, you don't even get basic chemistry started. We can't get anything more than helium atoms. And and so there's one, one of the counter arguments to the fine tuning that's been made by my sometimes debating partner, Lawrence Krauss, is that There's nothing unusual or surprising about these fine tuning parameters the process of evolution Just preceded in accord with the fine tuning that was already there But the problem with that is that you don't even get stable galaxies Or even carbon molecules and therefore the possibility of an evolutionary process unless you have a whole lot of prior fine tuning.

So attributing the fine tuning in a way to the evolutionary, attributing the Origin of life to the evolutionary process, which is adapting to the fine tuning that's already there doesn't really address the question of the origin of the fine tuning because you couldn't even have an evolutionary process if there wasn't prior exquisite fine tuning.

So the fine tuning needs to be explained apart from any appeal to evolution. And there the go to materialist explanation now is something called the multiverse. The idea that there are billions and billions, that's a technical mathematical term. Yeah. Yeah. I've seen that in the dictionary.

Yeah. Yeah. Other universes out there. So many, in fact, that one with just the right combination of fundamental parameters with just the right values would have had to have

arisen someplace in one of these other universes. The problem, there's a number of problems with that, but the biggest one, the most obvious one is that.

The multiverse explanation. Let me break this down a little bit more for the multiverse explanation to work. There needs to be some connection between these other universes and our universe. If there are, you can have as many other universes as you want, but if they don't. Affect anything in our universe, if there's no causal connection between them, then whatever happens in those other universes doesn't affect what happens in our universe, including it doesn't affect the, whatever process it was that set the fine tuning parameters in the first place or the probabilities of those fine tuning parameters.

So you're not really solving the problem of the immense improbability of our fine tuning simply by positing of the universe is there needs to be some sort of principle of connection. And in virtue of that, what the multiverse proponents have done is to posit the existence of an underlying universe generating mechanism or mechanisms that are functioning as a kind of common cause for all the universes so they can portray our universe as the outcome of a.

Giant cosmic lottery and then and therefore render, provide an explanation for the improbability of the fine tuning. But that's where the real rub comes in. Because for that to hold you would need in universe generating mechanisms. And the two that have been proposed are each based on different speculative cosmologies one, based on what's called inflationary cosmology.

Another one based on string theory or what's called the string theoretic landscape. And both of those speculative cosmologies, which would. In theory, at least give you universe generating mechanisms need to be exquisitely fine tuned so that those mechanisms would give you new universes. So

Mark Turman: They're really, they're just pushing the question further out,

Stephen Meyer: right?

Exactly. So you've got fine tuning leads to universe generating mechanisms, which presuppose prior unexplained, exquisite. Exquisitely improbable, fine tuning. You're right

back to where you started . So you even with the multiverse, you don't get rid of the problem of fine tuning, right? You come all the way back around to it.

But I would say that what we call fine tuning, which is an an improbable ensemble of parameters that worked together to accomplish a significant outcome or functional end, invariably in our experience. Arise arises from from intelligent agency. The things we describe as finely tuned a French recipe.

The placement of of a marker on the radio dial, the integrated complexity of the computer hardware and software system working together. Finely tuned systems in our experience always arise from intelligent agency, just as information always arises from an intelligent agency. So if... If fine tuning leads to a multiverse explanation, which leads back to prior fine tuning, but no deeper materialistic explanation.

In other words, if the materialists have no explanation for the ultimate fine tuning of the universe, Then I think intelligent design holds as the best explanation because it is the only known cause of the phenomena that we are phenomenon that we are attempting to explain.

Mark Turman: Okay, so we had just a few minutes before we wrap up, but you mentioned Newton and or Einstein and his statement after going out to California, others that have significantly even radically changed their view over time.

We have a friend of our ministry, John Stone Street, who says he's made this statement that we hang on to, which is ideas have consequences and bad ideas have victims. Have we been living in an age scientifically substantially where A lot of bad ideas have led us to a place that in the minds of some, if not the minds of many, I heard you talk about the nuns in our culture who are separating from all religious belief is part of this attributed to bad ideas where people like Einstein.

Have been for various reasons. What I love about some of your work is how respectful you are toward those who disagree with you where you can see their contributions, but also try to describe and call out their errors. Why do you think people like Einstein and others so diligently hold to their position when their own science and other science seems to be pointing in the opposite direction?

Why do they hold so diligent, diligently to that?

Stephen Meyer: I think that's just a human nature problem. We all do that. If we have an idea that's been working for us we can get attached to it and tend not to want to change our minds until we're confronted with overwhelming evidence. And if there are some of us who will change our minds when confronted with evidence and sometimes we, we, for whatever reason, bad faith or a bias or prejudicial idea.

We, we, we won't change. So I think that's just a kind of a common problem in human nature. It's what's also part of what's responsible for the phenomenon known as group think sometimes we just that is one reason we don't want to break from the crowd because we depend on others to, to help form our worldview and to stabilize it.

And so it's a hard thing for human beings to stand out against, Fifty hundred thousands of other people who seem to be saying no, that's not what's true. That's you. You're you're wrong. I think that's just part of our human condition, right? Let me talk about one side.

You talk about the consequences of ideas though. There's a scientist. I greatly admire. His name is Steven Weinberg. He's he passed away two summers ago. I wrote a an op ed in the Jerusalem Post eulogizing his great contributions to science. He was a Nobel winning physicist. I think he came from Harvard to the University of Texas wrote a famous book, [*The First Three Minutes*](#) about the Big Bang.

But he was in his personal philosophy, a very staunch scientific atheist. And he was famous for saying the more the universe seems comprehensible, meaning to our science, the more it seems pointless. I don't want to blame Weinberg for any particular tragedy, but this perspective, not Weinberg himself, but this perspective, which has been so persuasive in our universities of scientific atheism, leading to a kind of nihilism perspective, by the way, which affected me very much as a teenager sense of meaninglessness the the imperial I think has had a big consequence in people's lives.

Absolutely. There are a lot of young people that are, I think, are experiencing a kind of metaphysical anxiety. We have an anxiety epidemic in the country, but many of the people

who are experiencing that anxiety are often from very wealthy or well-to-do homes that they're not having a problem because of material deprivation.

They're having a problem because of an unfulfilled search for meaning and scientific materialism has little to offer in that regard. And I think, the ultimate message of a materialistic worldview is when you die, you rot. And Bertrand Russell had a famous quote where he talked about all the the finest noonday accomplishments of the human race would in the end die in the heat death of the universe.

You know what? And this was the question that haunted me as a. As a young teenager, what's it going to matter in 100 years? What is anything going to matter? I couldn't imagine any achievement, any human advance or progress that we might make in medicine or any technology eventually it will all die, no one will remember it.

What will it have mattered? And I think that haunting sense of meaning, ultimate meaninglessness the, our friends on the other side will point out that we can create our own meaning for the short time we're here on this planet, but there's something in each of us that would like there to be an enduring significance to our lives and maybe to our achievements, but certainly to our lives.

And the problem is nothing can mean anything to an atom. Or a quark or a galaxy or a rock things only mean things to persons. And if there isn't an ultimate personal source to the universe, and if there's no possibility of personhood persisting beyond our short time on earth, there is no possibility of meaning.

There's only the possibility of molecules. And and so I think that's been one of the ideas that has percolated in the culture. There's a loss of belief in God, but with that, a loss of belief in ultimate significance and meaning to one's own life. And I think that's. That is a tragic consequence of a bad idea, namely materialism.

Absolutely. There's much more to reality than matter and energy.

Mark Turman: Yeah. And said and I wish we could keep going, but your voice and your writing has just become so, so helpful in this To me personally and to others it just seems

God may be raising up you and others, people like James Tour that we mentioned John Lennox, Francis Collins, many that you have mentioned today who are coming with a different meta narrative that I think our world needs to hear.

And even as a non scientific person, it is really being helpful to me not only in just in understanding the world, but in understanding the beauty and wonder that God has created. And I just. I just want to thank you for your work. I look forward to learning more.

Stephen Meyer: Oh, that's incredibly encouraging, Mark.

Thank you for those kind words. And there are many scientists and philosophers in our network who are involved in this critique of materialism and in making the case. For theism and opening minds and hearts to the reality of a creator who I personally have found to be not just a philosophical concept but a Real presence in my life, especially when the chips are down.

That's There's a reality there that these ideas attest to but do not fully encompass

Mark Turman: So if people want to follow more of your work in addition to your books, such as the return of the God hypothesis, where can they find out more about you?

Stephen Meyer: There is a nifty website that our tech people here at discovery have created for the book called ReturnOfTheGodHypothesis.com. And from there, You can navigate to animations of cellular processes, debates between me and others and people on the other side of the discussion, the the new atheists, scientific atheists. proponents of darwinism I really I very much enjoyed friendly debates So we have had a great one two weeks ago with michael schirmer the editor of skeptic magazine on the brian callen show and Michael and I are friendly debating partners and I enjoyed that conversation.

So I think we've uploaded That you can find that online. So there's just a lot of material. I have op eds that I've written distilling these ideas. And one last summer for in newsweek, that was 800 words, but got the main ideas that we've been talking about in a form that's easy to digest. And we have a lot of short.

Videos, YouTube videos, short documentaries, a series called Science Uprising that's specifically targeted towards a younger high school college sort of audience. So if you go to returnofthegodhypothesis.com and start working the pull down menus, if you're interested in this topic, it's a porthole into a lot of other great material.

Mark Turman: Absolutely. Thank you for that. And again, thank you for your conversation today. I want to thank our audience as well for being a part of today's conversation. If this has been helpful to you, we hope that you'll rate review us on your podcast platform, as well as share this with others that you know would be interested so that they can be a part of the conversation.

Dr. Stephen Meyer, thank you for being a part of the Denison Forum podcast

Stephen Meyer: today. Thank you so much, Mark. We'll talk to you later. All right. God bless you. You too. Yeah. Bye bye.