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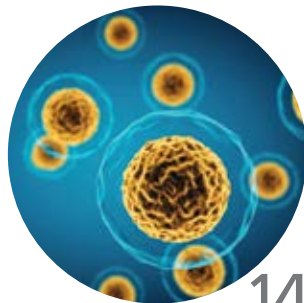
All Scripture quotations are from the New King James Version unless otherwise indicated.



Front cover: The Sun; elements of this image furnished by NASA.
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Mysteries of God

For those who love to read, the element of mystery often adds an extra layer to the enjoyment—we can't wait to turn the page to discover the identity of the villain, where the treasure is buried, or what long-hidden secret our protagonist harbors. What is it about mysteries that entices us? They provide intellectual challenges, puzzles in the form of written language, and they invite us to use literary clues—usually taking place in an adventurous setting and unraveling at a heart-pounding pace—to discover the unknown.

Mysteries aren't just reserved for the genres of fiction or true-crime stories, either. The Bible sometimes speaks of mysteries. In its pages we find riches and hidden treasures—but not the kinds that come to mind when we usually hear those words. These involve “attaining to all riches of the full assurance of understanding, to the knowledge

of the mystery of God, both of the Father and of Christ, in whom are hidden all the treasures of wisdom and knowledge” (Colossians 2:2-3).

In this issue of *Acts & Facts*, Dr. Henry Morris III points to some mysteries we encounter in the parables, prophecies, and miracles described in the Bible (“The Mystery of Godliness,” pages 5-7). He also says that ICR’s “conscious effort is to display the great ‘mystery of godliness’ so that all who look will see the reality of the Creator being ‘manifest in the flesh’” (page 7). “ICR is challenged to peel back the veil of naturalism and reveal the majesty of the Creator, whose Word is affirmed by the evidence of empirical science” (page 5).

One way our scientists peel back the veil of naturalism is to show evidence of God’s creative handiwork. Zoologist Frank Sherwin explains how the excellent design

of metabolic pathways points to our Creator. He says, “Only God can create life. At the subcellular level, we see the enormous complexity that is the work of His hands, and these pathways lead us to Him” (page 14).

Physicist Dr. Jake Hebert reveals clues to God’s design in our sun. Serious science readers will enjoy his article describing how the sun changes over 11-year cycles, and it may impact Earth’s weather and climate more than many scientists realize (pages 10-13).

Medical doctor and professional engineer Dr. Randy Guliuzza sees how viewing the human body from the perspective of a divine Engineer can uncover mysteries in the field of medicine. He says, “ICR believes the astounding innate healing, repair, or regenerative capabilities of living creatures... were purposefully engineered by the Lord Jesus...for His glory” (page 19).

The mysteries of God are so much more than intellectual challenges—they are sacred secrets from the very heart of God. Dr. Morris says, “Every Christian has the obligation to be a witness for the ‘glorious gospel’” (page 5). As believers in Christ, God has granted us the Spirit to understand the hidden treasures waiting for us in His Word. No amount of intellectual pondering can reveal the mysteries—only the Spirit of God can make them known. As Daniel said to King Nebuchadnezzar, “But there is a God in heaven who reveals secrets” (Daniel 2:28, 47). He planned His secrets in advance, before time even began, and He prepared things we haven’t seen or heard—things that haven’t even crossed the mind of any human being (see 1 Corinthians 2). He grants to His children the privilege to peer into the depths of the divine and uncover His hidden mysteries.

Jayme Durant

Jayme Durant
EXECUTIVE EDITOR

THE MYSTERY OF GODLINESS

And without controversy great is the mystery of godliness: God was manifested in the flesh, justified in the Spirit, seen by angels, preached among the Gentiles, believed on in the world, received up in glory. (1 Timothy 3:16)

H E N R Y M . M O R R I S I I I , D . M I N .

article highlights

- One of ICR's missions is to remove the veil of naturalism that keeps many people from clearly seeing nature's Creator, Jesus Christ.
- Some of Christ's earthly miracles involved outright creation, displaying His lordship over all creation.
- ICR's science staff stands on the shoulders of previous researchers, furthering their cutting-edge research that demonstrates the historicity and scientific validity of the Bible.
- ICR's goal is to display the mystery of godliness that Christ is both Savior and Creator. Our publications, events, and Discovery Center provide evidence to affirm the accuracy and authority of God's Word.

One of the main goals of ICR's mission is to convey the basic and foundational truth that our God, Redeemer, and King is also the Creator of the universe. Every Christian has the obligation to be a witness for the "glorious gospel" (1 Timothy 1:11), and we ordinarily do so through the focus of the substitutionary sacrifice of our Lord Jesus at Calvary and His resurrection.

But there is a greater mystery to this gospel that is often shrouded in the naturalistic matrix that pervades our educational and media systems. ICR is challenged to peel back the veil of naturalism and reveal the majesty of the Creator, whose Word is affirmed by the evidence of empirical science.

Without Controversy

The opening of Paul's bold statement

in 1 Timothy 3:16 uses the unique Greek term *homologoumeños*, a strong compound passive participle essentially meaning "all speaking the same thing." Basically, while the "mystery" is definitely "great," the proof for who Jesus is and His incarnation for the purpose of salvation is widely attested. It is that evidence that ICR is most concerned with in our mission to "speak the same thing" with clarity.

Mysteries of the Kingdom

While subtle evidences of the "godliness" are manifest throughout the ministry of the Lord Jesus, many of them would be seen most clearly by those already called into the Kingdom. Matthew 13 lists several evidences of the work of God on Earth. The parable of the sower and the reception of the gospel are easy to see if one even partially observes how the world reacts to Christianity.

The fact that God knew this and openly exposed these things in His teaching should be an evidence of His omniscience.

Likewise the parables of the tares, the mustard seed, the leaven, and the treasures all forecast the nature of the centuries of gospel growth and ultimate harvest of God's people at the end of the age. None of this would have been possible without the sovereign knowledge of the Creator who "works all things according to the counsel of His will" (Ephesians 1:11).

Magnificent Prophecies

Tomes have been written in attempts to refute the detailed Old Testament prophecies of the coming Messiah. All have fallen woefully short of their goals, merely demonstrating the impossibility of human foresight and the necessity of divine foreknowledge made available to human agents. The identification of the tribe of Judah and the family of David in the city of Bethlehem—both in widely separated passages—attests to God's sovereign plan. Daniel's detailed outline of the "70 weeks" still baffles those who would attempt to naturalize those words.

The odds of such prophetic events being fulfilled in one event are not merely additive but multiplied with each successive announcement. For instance, the identification of the tribe of Judah may have a predicative qualifier of 1 in 12 (the number of tribes), but multiplied by the identification of Bethlehem (of the some 500 or so towns in Israel at that time) it becomes not merely 1 in 512 but 12 times 500—or 1 in 6,000. There are about 300 prophecies fulfilled by the life of Jesus during His time on Earth. The odds of those all coming true in one person are beyond counting!

Creation Miracles

During His public ministry, Jesus demonstrated His authority and power with miracles that could only be done through the creation of new matter where none existed before. John's gospel account is built around seven such demonstrations. Jesus once said to those observing these displays of His creation authority and power:

"If I do not do the works of My Father, do not believe Me; but if

I do, though you do not believe Me, believe the works, that you may know and believe that the Father is in Me, and I in Him." (John 10:37-38)

Two examples should suffice. When Jesus turned the water into wine at the marriage feast at Cana (John 2:1-10), He created complex fibers, sugars, acids, bases, and juices with merely the instant thought from His mind. This was enough to stun the governor of the feast (to say nothing of the servants who filled the six water pots with 150 gallons of water). One may reject the evidence, but the feat could be nothing less than the creation of new matter where none existed before.

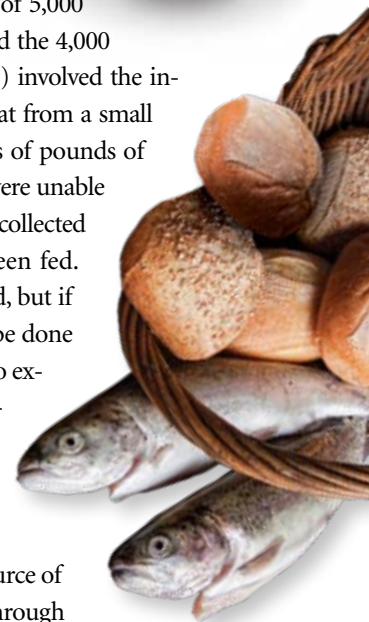
Likewise, the feeding of the crowd of 5,000 on one occasion (Matthew 14:13-21) and the 4,000 on another occasion (Matthew 15:32-39) involved the instant creation of new bread and fish meat from a small meal that was multiplied into thousands of pounds of food for the huge crowds. The apostles were unable to understand what happened as they collected the baskets of leftovers after all had been fed. Someone may choose to reject the record, but if it actually happened, then it could only be done by the One who brought the universe into existence by His spoken word just four millennia before.

ICR's Mission

The power of God's Word is the source of His authority in time and on Earth. Through the Word of God, we are given insight to who the Creator is, the role He has had in history, and the mystery of His being "manifested in flesh." Therein lies the core of ICR's mission. We are charged with demonstrating the accuracy, historicity, and scientific validity of that record, providing evidence that may clear away doubt on the part of unbelievers and wavering Christians.

Scientific Research

ICR is committed to quality research in the sciences. Some of that work has made it to the public in the form of books, papers, and seminar lectures. But most of the long-term effort is behind the scenes and continues to build upon the work of previous scientists and scholars such as those involved in the Radioisotopes and the Age of the Earth (RATE) project that culminated nearly 15 years ago. Dr. Vernon Cupps' recent book *Rethinking Radiometric Dating* expands on that work and provides a seminal review of the issues and demon-



strates the error of the common “proof” of the deep time so integral to the false story of naturalistic evolution.

Dr. Jake Hebert’s popular booklet *The Climate Change Conflict: Keeping Cool over Global Warming* is built on his stellar analysis of the errors of the widely accepted Milankovitch theory that has undermined Ice Age studies as well as serious studies of climatology. Dr. Hebert’s research is vital in the demonstration of the bad science that emboldens atheistic thinking.

Dr. Jeffrey Tomkins’ work on the chimp and human genomes has uncovered the fallacy of their supposed genetic similarity and has been responsible for exposing the related errors conveyed in school textbooks. His work has been published in secular journals and continues to make positive inroads within the scientific community.

Evidence of the global Flood during the days of Noah has been a strong emphasis from the days of ICR founder Dr. Henry M. Morris, Dr. Steve Austin, Dr. John Baumgartner, and Dr. Andrew Snelling. Dr. Tim Clarey has added to their work using data from oil drilling cores from all over the world. Dr. Clarey has answered many puzzling questions and demonstrated the assurance that the planet was inundated with a continent-covering flood. His outstanding research (soon to be available in his new In-Depth Science book *Carved in Stone*) will be the source of much encouragement to Christian geologists and strong evidence of the accuracy of Scripture.

Dr. Brian Thomas is researching original biochemicals in supposedly ancient fossils. These short-lived tissues—many found in dinosaur fossils—contradict the notion that these fossils are millions of years old since such tissues can survive for only thousands of years before decaying. We published his Ph.D. dissertation on this important topic, titled *Ancient Fossil Bone Collagen Remnants*.

Research Associate and zoologist Frank Sherwin continues to offer his unique insights on God’s intricately designed creatures in his writings and talks in the ICR Discovery Center for Science & Earth History and outside venues, along with ICR’s other scientists.

Additional work is being done by Dr. Randy Guliuzza. His research on natural selection has eviscerated the bold claim that evolution is a fact. Dr. Guliuzza has developed a running commentary and volume of examples demonstrating the built-in DNA design that God placed into the “program” of every replicating organism that enables the organism to sense and adapt to the environmental changes around it.

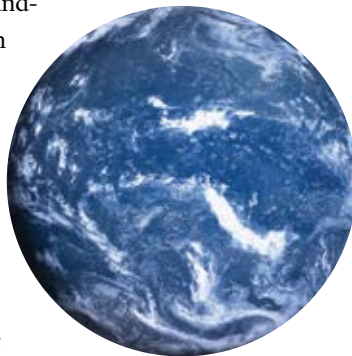


Image credit: Joseph Haubert

As one would expect from an omnipotent and omniscient Creator, His living organisms would have the designed ability to live in the changing world—especially since His sovereign attributes can be “clearly seen” in every age and throughout all time (Romans 1:20) until He reduces the universe to a molten mass from which He will make a “new heavens and a new earth” (2 Peter 3:10-13).

National Communications

ICR has been a quiet voice for the evidence of biblical accuracy for nearly 50 years. The *Acts & Facts* publication has grown from a small newsletter to a major monthly magazine. It and the *Days of Praise* quarterly devotional have both been made available without charge to any and all who want them. Those publications are read by nearly 250,000 people, and many more read them through social media. ICR conducts seminars and church training sessions in hundreds of venues each year. Thousands of attendees receive valuable insights and some of the latest work that ICR is developing. These ministries continue unabated.

The ICR Discovery Center

Of course, the newest member of our family is the ICR Discovery Center for Science & Earth History, which opened in Dallas, Texas, in September 2019. After nearly five years of development with almost \$35 million shared and given by the ICR family of supporters, the ICR Discovery Center stands to become a center of training and encouragement for thousands of guests, students, and school groups for years to come.

If you have not yet made your plans to visit, please do so.

The Discovery Center is truly unique with its cutting-edge video displays, depth of information available through its many kiosks, and constant emphasis on the scientific evidence that demonstrates the accuracy and authority of the Bible’s message. Our conscious effort is to display the great “mystery of godliness” so that all who look will see the reality of the Creator being “manifest in the flesh” and leave with the certain knowledge that He is returning one day as the rightful King of the universe that He has created. ✨

Dr. Morris is Chief Executive Officer of the Institute for Creation Research. He holds four earned degrees, including a D.Min. from Luther Rice Seminary and an MBA from Pepperdine University.



MARCH

2-3

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MARCH

6-7


Lincoln, NE
Indian Hills Community Church
**Nebraska Christian Home
Educators Association (NCHEA)
Conference and Curriculum Fair**
(R. Guliuzza) 214.615.8364
ICR.org/NCHEA


MARCH

7



Dallas, TX
**ICR Discovery Center for
Science & Earth History**
**Origins: ReExamining
the Evidence**





Jeffrey P. Tomkins, Ph.D. Tim Clarey, Ph.D. Brian Thomas, Ph.D.
Register at: ICR.org/Origins

MARCH

8

Omaha, NE
Providence Bible Church
(R. Guliuzza) 402.957.1859

MARCH

14

Rocklin, CA
**G1 Genesis Conference at
William Jessup University**
(B. Thomas) Register at
g1conference.com

MARCH

27-28

Hurst, TX
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Tyndale Heritage Lecture Series
(J. Johnson) 800.886.1415

MARCH

27-28

Dallas, TX
ICR Discovery Center for Science &
Earth History
Space Day at the Discovery Center
(J. Hebert, J. Williams)
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SAVE THE DATE

OCTOBER

8

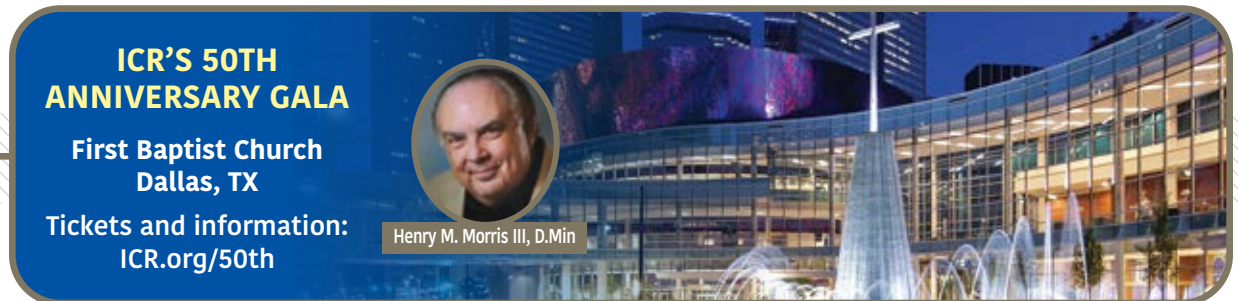
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Henry M. Morris III, D.Min.




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Flood Evidence from Sea Levels and Strontium

The October 2019 issue of *Acts & Facts* ran an article on the variation of the $^{87}\text{Sr}/^{86}\text{Sr}$ ratio in marine rocks.¹ One of our readers noticed a similarity between the $^{87}\text{Sr}/^{86}\text{Sr}$ graph in that article and the megasequence/geological column graph of relative sea levels that first appeared in the February 2019 issue.^{2,3} When placed together on the same secular timescale, the Figure 1 dual graph is the result.

Using the secular timescale on the left side, sea level steadily increased from the Precambrian era (~540 million years ago) until the end of the Cretaceous system (~66 million years ago). This was based on the progressive continental sediment coverage we observed.³ Global sea level shows a precipitous decrease from the Cretaceous system to the late Neogene system (~2.5 million years ago). The accompanying rise in the $^{87}\text{Sr}/^{86}\text{Sr}$ ratio is typically interpreted as reflecting the uplift of the Himalayas during the Paleogene system.⁴

Veizer and Mackenzie⁴ conclude this ratio is primarily controlled by two sources: the “mantle” (formation of ocean crust) and the “river” flux.⁵ When combined, these two

article highlights

- Two graphs published in separate 2019 ICR articles that measure sea level and strontium ratios throughout Earth history mesh well when laid on top of each other.
- These matching graphs support the catastrophic Genesis Flood by demonstrating the relationship between the strontium ratio and sea level during new ocean floor development in that year-long event.

sources can be placed in a balance equation with approximately 75% coming from the river sources and 25% coming from the mantle sources, to give the value of 0.7092. If one assumes Figure 1 represents 540 million years, then one is forced to conclude the balance between mantle and river flux contributions to the ratio was in continual change for those 540 million years, with the mantle contribution dominating the river contribution. However, over millions of years, one would expect a more uniform change in the sea level, and especially in the strontium ratio.

These two data sets appear to support several conclusions:

1. Like the strontium ratio, the sea’s final level is approximately the same as where it started. This better represents a catastrophic flood thousands of years ago rather than millions of years of slow variation.
2. The strontium isotope ratios seem to be strongly influenced by the formation of new ocean crust during the Flood, with the lowest ratios corresponding to the maximum volume of seafloor formation. The formation of new, hot ocean crust pushes up the sea bottom and raises global sea level.
3. The timing of formation of maximum ocean crust corresponds with the highest sea level. This is what we would expect to occur in the Flood year.
4. It also indicates that a decrease in the $^{87}\text{Sr}/^{86}\text{Sr}$ precedes a significant rise in sea level. Could this indicate significant volcanic activity (the fountains of the deep breaking up in Genesis 7:11) from the lower crust/upper mantle before a significant rise in sea level?
5. Note that the maximum sea level is attained at the end of the Cretaceous system—the K-T or K-Pg boundary. In a biblical interpretation, this would be the peak of Noah’s Flood (Genesis 7:19).
6. In a biblical worldview, the Paleogene and Neogene systems represent a floodwater recession period, finally returning the isotope ratios and sea level to their pre-Flood values (Genesis 8:2-3).
7. Thus, in a biblical worldview, Earth dried and Noah emerged from the Ark some time near the end of the Neogene system.

The strontium isotope ratio for seawater better supports the biblical catastrophic megasequence interpretation of Earth history rather than the conventional hundreds of millions of years view. ☞

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3. Clarey, T. 2019. A Rock-Based Global Sea Level Curve. *Acts & Facts* 48 (2): 9-10.
4. Veizer, J. and F. T. Mackenzie. 2013. Sediments, Diagenesis, and Sedimentary Rocks. 7.15.11.2.1. In *Treatise on Geochemistry*, 2nd ed. H. D. Holland and K. K. Turekian, eds. Amsterdam, Netherlands: Elsevier Science.
5. The former can be thought of as strontium exchanged between seawater and the oceanic crust with an average $^{87}\text{Sr}/^{86}\text{Sr}$ ratio of ~0.703. The latter is viewed as reflecting the more fractionated composition of the continental crust that feeds more ^{87}Sr into the oceans via rivers. In 1989, the average strontium isotope ratio for rivers was estimated to be ~0.712. See Palmer, M. R. and J. M. Edmond. 1989. The strontium isotope budget of the modern ocean. *Earth and Planetary Science Letters*. 92 (1): 11-26.

Dr. Cupps is Research Associate at the Institute for Creation Research and earned his Ph.D. in nuclear physics at Indiana University-Bloomington. Dr. Clarey is Research Associate at the Institute for Creation Research and earned his Ph.D. in geology from Western Michigan University.

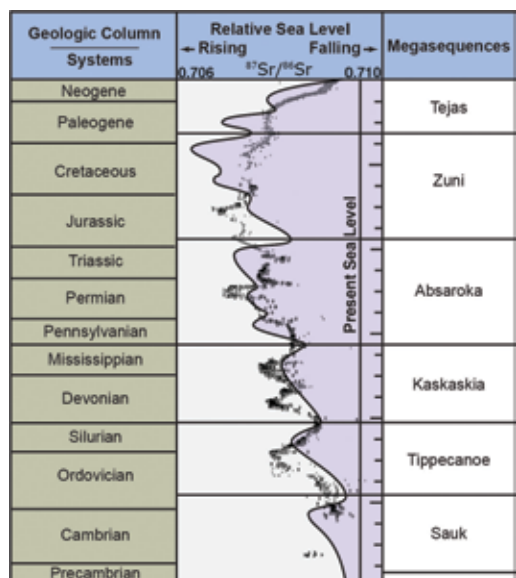
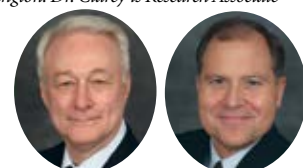


Figure 1. The $^{87}\text{Sr}/^{86}\text{Sr}$ ratio chart superimposed on a nominal geological column representing Earth’s sea levels during its hypothetical 540-million-year history. Courtesy of Davis J. Werner.

Cosmic Rays, Sunspots, and Climate Change

PART 1

article highlights

- Our sun goes through regular 11-year cycles. Sunspots are an indicator of these cycles.
- Sun cycles appear to affect Earth's weather even though heat and light from the sun vary only a little over time.
- The sun's magnetic field extends far into space. It envelopes our solar system and varies over time.
- This magnetic field appears to affect Earth's weather and climate by affecting the number of cosmic rays entering Earth's atmosphere.

Sunspots are relatively cool blotches on the sun's surface (Figure 1). The number of sunspots is an indicator of how active the sun is. It has the most sunspots when it's most active—at solar maximum—and has a slightly higher total energy output during that time. Likewise, the sun has the fewest sunspots at solar minimum. The number of sunspots varies over an 11-year solar cycle. Could there be a connection between sunspot cycles and Earth's weather and climate? If so, is this relevant to the global warming debate?

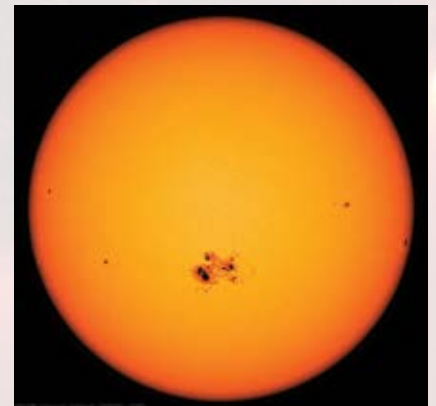


Figure 1. Sunspots on the sun's surface.

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Sunspots and the Little Ice Age

We are now close to a solar minimum, with few observable sunspots. Scientists have predicted that within the next 30 years an even deeper solar minimum, with even fewer sunspots, could occur.¹ Such a time of extremely low solar activity is called a *grand solar minimum*.

The last grand solar minimum was the Maunder Minimum (Figure 2), named after British astronomer Edward W. Maunder. It lasted from 1645 to 1715 and coincided with the coldest part of the period known as the Little Ice Age. There is debate about whether the Little Ice Age was a time of globally lower temperatures or whether they were only lower in certain regions. However, it's widely accepted that temperatures in Europe and North America were much colder during the Maunder Minimum. In fact, winters in Britain were so cold that the Thames River sometimes froze over, allowing Londoners to have “frost fairs” on the ice!

The Sun and Climate

Much circumstantial evidence suggests that the sun somehow affects Earth's weather and climate.²⁻⁵ However, any connection between the sun and weather has to be due to something other than changes in the sun's overall brightness, since it changes only a tiny amount (0.1%) over an 11-year solar cycle.⁶

The sun's magnetic field, however, varies considerably over both long and short time periods, and sunspots are highly magnetized. Part of the sun's magnetic field extends far out into space, even to the planets. This part of the field is called the *interplanetary magnetic field* (IMF). The IMF influences the number of fast-moving charged particles from outer space entering Earth's atmosphere. These particles (mainly protons) are called *galactic cosmic rays* (GCRs)⁷ and are thought to come from supernova explosions and other distant sources within our Milky Way galaxy.

During a solar minimum, the IMF is weaker and allows many GCRs to enter Earth's atmosphere. At solar maximum, the opposite is true—the IMF is stronger and greatly decreases the number.⁸ The number of cosmic rays entering the atmosphere can vary 15% over the course of a solar cycle.⁹

When these fast-moving protons collide with molecules in our atmosphere, a shower of charged particles, or *ions*, is produced. Many scientists suspect these charged particles influence cloud behavior, which affects global weather and climate.

The First Model on the Effect of GCRs

There are two main schools of thought on how GCRs could affect weather and climate. Danish physicist Dr. Henrik Svensmark advocates the first proposal.¹⁰ Cloud droplets cannot form unless tiny particles, or droplets, called *aerosols* are present in the air. Some of these aerosols have the

400 Years of Sunspot Observations

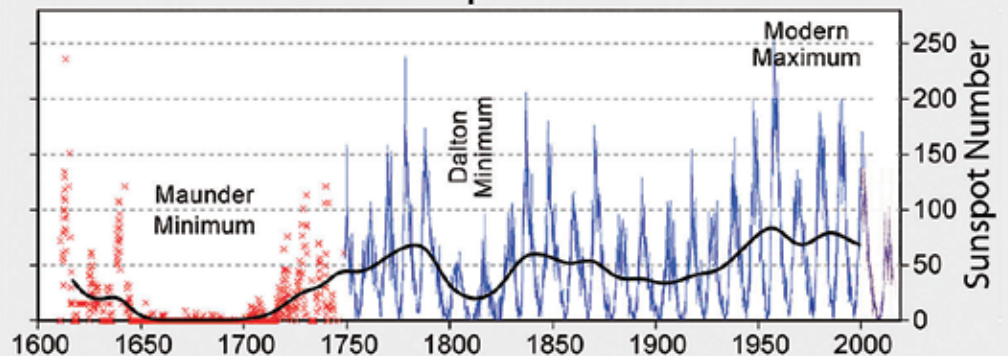


Figure 2. A grand solar minimum with extremely few sunspots is expected within the next 30 years. The last grand solar minimum, the Maunder Minimum, coincided with very cold temperatures in North America and Europe.

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right properties to act as “seeds” for the formation of new water droplets in clouds. These aerosols are called *cloud condensation nuclei* (CCNs) because water vapor condenses on them to form cloud droplets. The charged particles (ions) that result when GCRs enter the atmosphere increase the number of CCNs, enabling more cloud droplets to form. This model can be summarized as “more cosmic rays make more clouds.”

The Second Model on the Effect of GCRs

Dr. Brian Tinsley, professor emeritus of the University of Texas at Dallas (UTD), endorses the second model.¹¹ In my opinion, Dr. Tinsley’s mechanism is more convincing than Dr. Svensmark’s, although I am admittedly biased since Dr. Tinsley was my Ph.D. research advisor at UTD.¹² I should point out that Dr. Tinsley doesn’t share my creationist views, and he believes global warming is real, although he doesn’t think we should panic over it.

Dr. Tinsley’s mechanism involves the fact that Earth’s surface and ionosphere (a highly conducting layer of the atmosphere above the atmosphere’s lower layers) are good conductors of electricity. Electrical capacitors are made of two electrical conductors (usually metals) separated by a short distance. When the two metals are connected to opposite terminals of a battery, equal and opposite charges are stored on them.

Many of us were introduced in physics class to capacitors composed of two parallel metal plates. Although Earth and the ionosphere are both spherical, physicists simplify the analysis by treating the ionosphere as one plate and Earth’s surface as the other plate of a parallel plate capacitor.

The Global Electric Circuit

Low-latitude thunderstorms act like batteries that maintain a potential difference, or voltage,¹³ of about 250,000 volts between the ionosphere and the ground. This voltage can vary depending on the amount of worldwide thunderstorm activity.

On a well-designed capacitor, the charges on the metal plates are maintained as long as the battery remains connected. However, if a material is placed between the metal conductors that weakly conducts electricity, a small current will flow from one metal plate to the other. The charged particles (ions) in Earth’s lower atmosphere make the air a weak electrical conductor. The 250,000-volt potential difference between the ionosphere and Earth’s surface drives a total current of about 1,000 amperes toward the ground. However, this current is spread over Earth’s entire surface so that the current falling on a given square meter of surface is tiny—just a few trillionths of an ampere.

This tiny current density (current per square meter) can be measured with sensitive instruments. Physicists often use the letter J to denote electrical current and the letter z to indicate the vertical

direction, so this downward fair-weather current density is indicated by the symbol J_z . This current per square meter is not lightning—it’s the downward electrical current (per square meter) that comes from the ionosphere to Earth’s surface.

For most locations on Earth’s surface, the voltage V will have the same value at any given time. But the electrical resistance R of a particular column of air varies with location because it depends on the number of ions in the air at that location. The more ions, the easier the currents can flow and the greater J_z will be. Therefore J_z varies from place to place. At one location J_z can be high while simultaneously being lower at some other location even though the same voltage V is “pushing” both current densities (Figure 3).

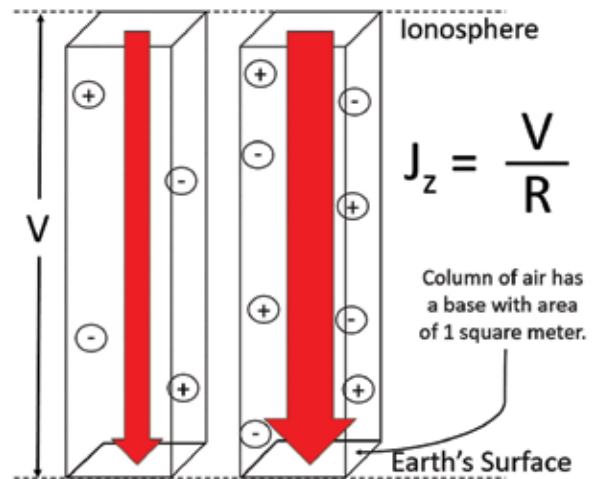


Figure 3. The voltage V between the ionosphere and surface of the earth pushes the tiny downward electrical current density J_z . Increases in V and decreases in R make J_z larger. Decreases in V and increases in R make J_z smaller. Because the number of ions in a column of air varies from place to place, the size of J_z also varies from place to place.

Charges on Clouds

Physics theory shows that when J_z passes through a cloud, a layer of positive charge forms on the cloud top and a layer of negative charge forms on the cloud bottom (Figure 4). The amount of this

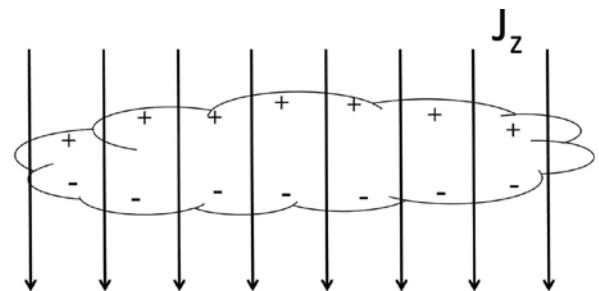


Figure 4. When J_z passes through a cloud, a layer of positive charge will form on the cloud top and a layer of negative charge will form on the cloud bottom.

charge depends on J_z ; the higher the current density J_z , the greater the charge. This charge ends up on both CCNs and water droplets within the cloud.

When CCNs and water droplets collide, they almost always stick together.¹⁴ However, the charges on the CCNs and water droplets influence the rates at which the tiny CCNs are scavenged or “gobbled up” by the larger droplets.

At first, you might think the charges simply repel the droplets from the CCNs since like charges repel. But it’s more complicated than that. The water droplets and CCNs are more like little conducting spheres than the “point” charges you may have discussed in high school or college physics classes. This means there will be both attractive and repulsive forces between the CCNs and cloud droplets.

Sophisticated computer simulations show these charges increase the rates at which large CCNs are scavenged by the water droplets while at the same time decreasing the rates at which smaller CCNs are scavenged.¹⁵ In the Tinsley model, the charges on cloud droplets and aerosols influence or modulate the rate at which aerosols are scavenged by water droplets. For this reason, it is called *charge modulation of aerosol scavenging* (CMAS).¹⁵

The Effect on Clouds

As J_z grows, more of the large CCNs will be scavenged by the existing water droplets. This means the remaining CCNs, which can still act as potential “seeds” for the formation of new droplets, will be smaller on average. Smaller CCNs favor the formation of smaller water droplets. So, when J_z is high, newly forming cloud droplets should be smaller on average. This makes the range in droplet sizes within the cloud smaller so that the droplets are more uniform in size. Because rain occurs when larger cloud droplets collide and coalesce with smaller cloud droplets, more homogenous droplets delay rainfall. That means the cloud will last longer.

One big prediction of Dr. Tinsley’s model is that at locations where J_z is high, clouds will have smaller average droplet sizes, will

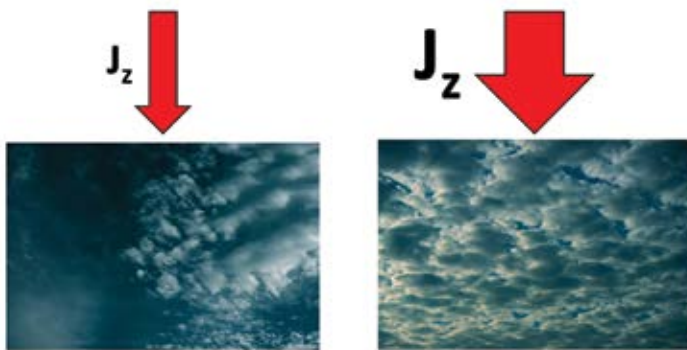


Figure 5. Lower values of J_z at a location should decrease the number of clouds at that location. Likewise, higher J_z values at a location should increase the number of clouds.

last longer, and will delay dropping rainfall. Likewise, lower values of J_z will be associated with larger droplet sizes, fewer clouds, and shorter cloud lifetimes (Figure 5).

The Cosmic Ray Connection

You may remember the equation $V = IR$ from physics class. Here, V is the voltage applied across an object having an electrical resistance R , and I is the resulting electrical current that the voltage is pushing through the object. The equation can be rearranged as $I = V/R$.

The current I depends on both voltage and resistance. The same is true with the current density J_z . Its value at a given location depends on the electrical resistance R of the atmosphere at that location.¹⁶ This is because columns of air with high electrical resistances have low electrical conductivities and vice versa. J_z also depends on the voltage V between the ionosphere and Earth’s surface. For this reason, J_z can vary in size from place to place. At one location J_z can be high, but at the same time it can be smaller at another location.

Dr. Tinsley thinks J_z is the true connection between solar activity, cosmic rays, and weather and climate. He thinks others have mistakenly focused entirely on cosmic rays when they are really just one of a number of factors that influence J_z . For this reason, he thinks researchers should look for correlations between weather, climate, and J_z —not simply between weather, climate, and cosmic rays.

In Part 2, we discuss evidence for this mechanism, ways to test its validity, and its possible implications for the global warming debate. ☞

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- Technically, R is the *columnar resistance*—the total electrical resistance of a column of air whose base has an area of one square meter. Columnar resistance has units of ohms- m^2 rather than ohms.

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We read in Genesis 1 how God created the universe and everything in it—from people, animals, and plants to planets and stars. Life is incredibly complex, having been created that way “in the beginning.” Indeed, there is no such thing as “simple” life.¹

Metabolic Pathways

God created the majority of life forms as cellular organisms—from single-cell protozoa to huge multicellular creatures such as blue whales. Even bacteria and plants are cellular in nature, despite the unique construction of their cell walls.

In biochemistry, a *metabolic pathway* is a linked series of chemical reactions occurring within a cell that leads to the formation of one or more functional products. Metabolic pathways are the means living entities use to convert, via enzymes (proteins), one compound into another. Such pathways are found in all living creatures.

A molecule that starts a chemical pathway inside a cell is called a *substrate*, a substance on which an enzyme acts. Enzymes are also called *biological catalysts* and are designed to make biochemical reactions proceed with incredible speed. When an enzyme connects with a substrate (reactant molecule), the substrate breaks into two product molecules (products) while the enzyme remains unchanged and immediately connects with another substrate. These reactions occur in a fraction of a second.

In each moment of cell life *billions* of substrates are transformed into *billions* of products by *billions* of enzyme molecules. These reactions are extremely fast, and we can imagine the cell as a viscous environment where these reactions occur in an ordered (and only apparently chaotic) fashion. The whole body of these reactions is called *metabolism*.²

Cellular pathways begin outside the cell when a *ligand* (or first messenger) encounters a specific protein detector (or receptor) that is suspended in the plasma (or cell) membrane. A large family of these detectors is called *G protein coupled receptors* (GPCRs).³ These GPCRs are designed to detect specific biomolecules (ligands) outside the cell and initiate internal signal pathways inside the cell and, ultimately, create cellular responses such as the production of proteins.

Metabolic Pathways to God

Did These Pathways Evolve?

One must ask if these complex and ordered pathways are the result of time, chance, and random processes or the result of plan and purpose. In Lehninger’s *Principles of Biochemistry*, the authors state all the GPCR signaling mechanisms “must have arisen early in evolution.”⁴ But the phrase “must have” is hardly a scientific explanation and fails to describe any form of step-by-step Darwinian origin for this elaborate mechanism. For example, the sense of smell (olfaction) in people and other mammals is due to GPCRs, but “little is known about how olfactory receptors function in mammals, or how this large gene family has evolved in response to different evolutionary challenges.”⁵

Four years after that statement, the supposed evolution of these fascinating pathways remained unknown. As reported in the *Annual Review of Biochemistry*, “The emergence of the pathways that now comprise core and central metabolism, or even intermediate metabolism, is particularly enigmatic.”⁶

Indeed, other evolutionists see the obvious design in these living pathways (albeit without acknowledging the designing Creator) and rightfully compare them to human technology. A parasitology textbook commented on internal cellular reactions in protozoa and “the multitude of other metabolic events that make biochemical pathways look like printed circuits of high-tech electronic equipment.”⁷

Only God can create life. At the subcellular level, we see the enormous complexity that is the work of His hands, and these pathways lead us to Him. ✨

article highlights

- The sophisticated chemical reactions inside living cells are called *metabolic pathways*.
- Evolutionists assume these pathways must have evolved early since they are necessary for life.
- But how can something that rivals high-tech circuit boards in complexity evolve from simple, random chemicals?
- Metabolic pathways point to God’s design genius.

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Iron Face Mask Found in Coal?

I was recently contacted by an older lady¹ who grew up in the coal mining area of Appalachia. Her ancestors had lived in the area for generations, and she related how her miner father, now deceased, had made a remarkable discovery embedded in a coal seam—a human face made of cast iron!

Like most people, they had been taught that coal is far too old to contain any human artifacts. The miner was so proud of his find that it became a source of family pride and was simply named “Man.” As a large, heavy object, it was used as a door-stop for decades and later stored among his belongings. She distinctly remembers her father’s story and the care he took for his “pride and joy.” She recently rediscovered it among her father’s possessions.

Creationists know that nearly all coal seams, particularly Appalachian coals, were formed by the Flood of Noah’s day, as low-lying coastal forests were uprooted *en masse*, transported, and redeposited during the great cataclysm. Coal typically retains the chemical signature of these pre-Flood swampy forests that were buried in enormous deposits, where heat and pressure altered the organic material into coal. Since the plants typically found in coal were not from the environments in which humans or mammals lived, we wouldn’t expect their remains to be commonly fossilized with them. Human remains would scarcely have survived the Flood’s turmoil, but perhaps their artifacts might make it, buried in various sediments.

The miner had difficulty discerning what the artifact was in the dim light underground, but when he cleaned off all the coal, it appeared to be a human face. Perhaps it is the representation of some long-ago indi-

article highlights

- An Appalachian coal miner reportedly discovered an iron face mask embedded in coal.
- A genuine human-made artifact shouldn’t be there if coal deposits are millions of years old.
- The mask can’t readily be documented as authentic, but this should encourage creationists to look for credible claims of human artifacts found in supposedly ancient coal.



vidual, similar to death masks of important people made in recent times, like Abraham Lincoln and Theodore Roosevelt. Care was obviously taken to reproduce and preserve tiny details of the face—even the cracks and blemishes.

The procedure of creating the original mask would have involved covering the living (or more likely deceased) person’s face with a hardening material such as plaster in order to produce a reverse cast. A more permanent material was then poured into the resulting depression—in this case, melted iron. Once cooled, it preserved an exact duplicate of the face in the form of a three-dimensional mask.

Whatever the original cast consisted of, the mask is made of iron and is the size

of a man’s face. It measures six inches at its thickest and weighs 50 pounds. The upper side shows the facial features, while the underside is flat. Protruding from its forehead is a “handle” of sorts that would’ve allowed it to be carried while hot.

Unfortunately, the fact that the mask was so well cleaned largely invalidates its use for scientific purposes, as do the memories (however accurate) of the descendants. Such

anomalous fossils or artifacts, however, do provide creation advocates with an intriguing possibility. This iron mask provides encouragement, along with other similar artifacts that have been claimed as authentic, although no claim of proof of creation truth is made here.²

This mask may perform another vital task. It may stir the memories of other coal miners or their descendants who have maintained an artifact with the coal still attached, or better yet someone may know of, or discover, an artifact *in situ* (in position) without reliance on memories alone. Such an “outrageous hypothesis” as a human artifact found in a coal seam requires impeccable credibility. Unless an artifact is scientifically documented, it will not be acceptable in scientific circles. ✎

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John D. Morris is President Emeritus of the Institute for Creation Research and earned his Ph.D. in geology from the University of Oklahoma.



Discovery Center Live Presentations and Special Events



Dr. Jake Hebert

Attendees discovered how every person is created by God with unique physical abilities, intellect, and spiritual life to fulfill His purpose.

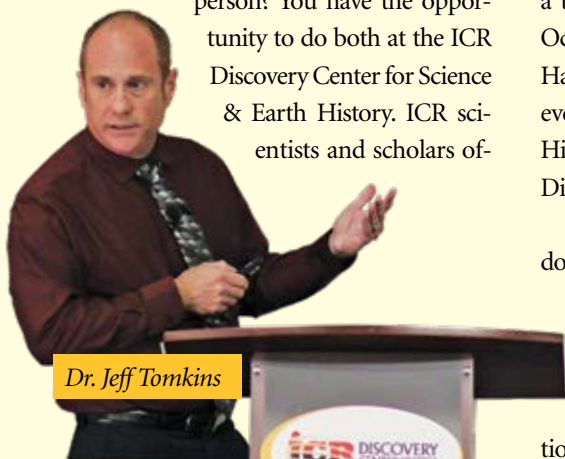
We're planning other presentations and special events at the Discovery Center, and we want to see you here! Use our live presentation calendar (ICRdiscoverycenter.org/live-presentations) to maximize your visit and ensure you have the correct ticket to attend. ☞

Have you been wanting to ask an expert your deepest questions about faith and science? Would you like to hear your favorite ICR scientist speak in person? You have the opportunity to do both at the ICR Discovery Center for Science & Earth History. ICR scientists and scholars of-

fer live presentations in the Founder's Hall auditorium throughout the month.

Founder's Hall seating is usually first come, first served for visitors who purchase a ticket to the planetarium or exhibit hall. Occasionally, though, a separate Founder's Hall ticket is required for special speaking events. Such was the case for the Made in His Image Weekend event we hosted at the Discovery Center January 17-18.

During the MIHI Weekend, medical doctor and Professional Engineer Dr. Randy Guliuzza and geneticist Dr. Jeff Tomkins offered science presentations that explored the wonders of God's design in the human body—created fully functional, fully human, and fully in His image.



Dr. Jeff Tomkins



ICR Events Director Chas Morse fields questions for Dr. Randy Guliuzza and Dr. Jeff Tomkins during a Q&A session.



Dr. Jeff Tomkins delivering his talk on apes and humans



Beautiful presentation with facts that both children and adults need to hear—very professional. **Probably best of all are the talks given by creationists that allow for audience interaction with the speakers.**

— L. S.



We just attended the Saturday [Made in His Image Weekend] session and were educated and edified. Planning to keep these seminars on our calendar!

— D. S. P.



We went to the lecture and [Dr. Guliuzza] was talking about how science is worship....and just hearing that and seeing all the intricate things our body does—I just wanted to praise the Lord!

— L. S.



Darwinian Medicine Is Poison to Health Care

R A N D Y J . G U L I U Z Z A , P . E . , M . D .

In basic terms, practicing medicine is the science of preserving health and life. Darwinism, on the other hand, is a death-driven worldview holding that life advances through survival of the fittest. When the two are joined, you have one of the biggest combinations of self-contradictory thought perpetrated in the last 50 years. But though “Darwinian medicine” is an oxymoron, it’s a very real approach advocated by people intent on having their worldview permeate every facet of life.

The faith-based foundation of Darwinian medicine was summed up in a book review for *The Journal of the American Medical Association*:

George Gaylord Simpson made the observation, nearly half a century ago, that “Man is the result of a purposeless and natural process that did not have him in mind. He was not planned.” The proponents of Darwinian medicine have taken this dictum to heart. They argue that by viewing the human form as a result of past episodes of natural selection, rather than purposeful design, one can develop new insights into the causes of illness and more effective preventions and treatments.¹

Thus, the core belief of Darwinian medicine is that a mystical agent called *natural selection* molds living creatures in a way that

looks designed—in lieu of God’s agency in actually designing them. This *selectionism* mentally projects selective capability onto environments and believes that nature can exercise agency to produce diverse creatures. Selectionism is a path that enables many scientists to essentially become worshippers of nature.² Advocates of Darwinian medicine seek to guide their practice of medicine by following the routes they imagine nature took to produce life’s diversity.

However, the belief that human features were cobbled together through an imaginary history of evolution has, oddly enough, not improved medicine. Instead, much suffering happens when medical practitioners reject the purposeful design of anatomy and physiology.

Evolutionary Medicine: A Disaster for Patients

Darwinian medicine was pioneered by George Williams of State University of Stony Brook and Randolph Nesse of the University of Michigan Medical School. Early on, they complained:

Evolutionary biology, however, has not been emphasized in medical curricula. This is unfortunate, because new applications of evolutionary principles to medical problems show that advances would be even more rapid if medical professionals were as attuned to Darwin as they have been to Pasteur.³

- Darwinian medicine reflects the selectionist belief that human features are the result of natural selection rather than purposeful design.
- Eugenics’ moral and social disaster came from a direct application of Darwinian medicine to society.
- Advocates of Darwinian medicine coat standard medical practices in an evolutionary gloss and then portray them as new contributions.
- Medical research advances best by methodically reverse-engineering the exquisite living systems in our world.

article
highlights

Yet, medical history already shows the nonsense of William's and Nesse's claim that Darwin's thinking would advance medicine to the same extent as Pasteur's did. Importing the Darwinian worldview into medicine has proved extremely negative. A 2009 ICR article explained why Darwinian medicine is a prescription for failure.⁴ The track record showed thousands of needless surgical procedures to remove organs because Darwinists erroneously viewed them as useless "vestigial" evolutionary remnants. Medical research along multiple lines was hindered for years based on the prejudicial personification of natural selection as a klutzy "tinkerer." A later ICR article documented the uselessness of evolution to medical education.⁵

Eugenics programs apply the concept of natural selection in government-run quests to improve a population's genetic composition.⁶ Eugenists hope to conserve the human gene pool by eliminating defects. They view the selective sterilization, abortion, or euthanization of "weaker" people as vital to humanity.

Historically, medical applications tried to mimic nature's "selective" death or loss of reproduction. Yet, they constitute an abuse of medicine on par with the most abusive political regimes.⁷ The appalling legacy of eugenics-based thinking can be laid squarely on the concept of selectionism,⁶ as Randolph Nesse candidly admitted:

In the late nineteenth and early twentieth centuries, most applications were "medical Darwinism" that focused on the welfare of the species. In connection with eugenics, this led to moral and social disaster.⁸

When you analyze evolutionary literature, see if the words "Mother Nature" can be substituted for "natural selection." If you can do it without making the explanation any more magical, then this reveals that an evolutionary "narrative gloss" has been applied to basic research.⁹

Likewise, Darwinian medicine is a narrative gloss that covers genuine medical research. Historically, we know that medically useful insights were derived *apart* from Darwinian thinking. Evolutionists claim credit by dragging the discoveries on a needless detour through selectionism.⁴ Over a decade ago, a proponent of evolutionary medicine conceded its lack of clinical value by saying, "Add to this [a tight curricular schedule] the fact that the field has failed so far to provide clinically useful findings and you see why medical schools lack interest" in providing evolutionary training.¹⁰

Darwinian Medicine Still Lacks Clinical Value

Are patients benefitting today from clinically useful findings through Darwinian medicine? In 2018, Oxford University Press began publishing the open-access journal *Evolution, Medicine and Public Health*. The journal's "8 New Clinical Briefs" for 2019 should indicate if Darwin's selectionism leads to unique and valuable medical contributions.¹¹ For instance, physicians and patients know that gender differences need to be considered in treating illnesses. One EMPH clinical brief proposes an evolutionary scenario to better un-

derstand how these differences emerged:

Overall, stronger sexual selection in males in our early hominid ancestors together with constraints in the genetic architecture imposed by sexual conflict might explain the sex-bias and persistence of pathogenic phenotypes in contemporary human populations.¹²

Taking this insight from Darwinian medicine, the brief cautions doctors to recognize that "clinical approaches need to account for the ubiquitous sex differences in disease profiles and risk factors as well as in the effectiveness of therapies for both sexes."¹² But that elementary guideline is already taught in the early days of med school. Repeating what physicians already know in the context of an evolutionary narrative gloss does not make it a fresh insight.

Another brief addresses the observation that people in different cultures have different rates of obesity and, on average, different resting metabolic rates. This evolutionary account posits that:

Exposure to colder climates may have shaped human metabolism by positively selecting for a higher resting metabolic rate (RMR), at the expense of building lower adipose stores for times of food insecurity. This evolutionary trade-off has been supported by the fact that RMR varies between populations.¹³

Unfortunately, when researchers are content with an imaginary narrative gloss about "positive selection" producing "evolutionary trade-offs," then inquiry into useful details about how RMR is internally regulated gets derailed. What clinical guidance was offered? Doctors should consider differences in RMR when treating for obesity—something that's been happening already without Darwinian assistance.

The remaining briefs repeat the same ruse: take existing medical practices, freely coat them in imaginary evolutionary scenarios, and then portray them as profound new insights fresh from the practice of Darwinian medicine.

Darwinian Medicine Lacks Predictive Value

An online clearing house for issues related to Darwinian medicine recently posted this job availability: "The Laboratory for Evolutionary Medicine at Baylor University is searching for a postdoctoral fellow, with a generous contract renewable for multiple years, to work."¹⁴ Interestingly, the posting said nothing about research conducted within the confines of evolutionary theory. Rather, areas for investigation



were the same as normal medical research. This seems to indicate that, again, medical research won't be guided by evolutionary theory but covered by a useless narrative gloss after the fact.

There is a scientific way to determine if Baylor's Laboratory for Evolutionary Medicine can justify funding from donors. Given the long lead time to develop new drugs, a valuable contribution would be for these evolutionists to predict—based solely on their notions of human evolution—a new, presently unobserved disease for which pharmaceutical companies should start developing a treatment. So far, no such predictions have been forthcoming from any advocates of Darwinian medicine.

Where Eugenics and Medical Education May be Headed

A 1998 worldwide survey of over 2,900 genetics professionals found a strong association between eugenics-based thinking and current medical goals to detect and prevent genetic disease in society.¹⁵ Furthermore, this research revealed that “directiveness” in counseling, based on pessimistically biased information of persons with genetic disabilities, influences parental decisions after a prenatal diagnosis.

Yet, screening tests don't prevent people with genetic diseases from entering society—abortion does. Today's eugenics-abortion link is stronger than ever. One president of the American Board of Medical Genetics plainly affirmed:

I come now to the final question regarding prenatal diagnosis and eugenics—does prenatal diagnosis involve deprivation of life? The answer, in real terms, is certainly yes. Whatever the theory might be with regard to prenatal diagnosis as merely providing information, prenatal diagnosis and abortion are inextricably linked.¹⁶

Darwinian medicine isn't the only medical education proposal with ethical implications. Another ominous change seeks to accommodate increasing demands for abnormal—indeed, perverse—medical interventions. Take, for example, a teenage girl who claims “Rapid-Onset Gender Dysphoria” after saturating her mind with online misinformation. Believing she is truly a male, she requests her physician prescribe testosterone to halt feminine sexual development and immediate referral to a surgeon to get “top surgery” (a double mastectomy). She informs her physician that the American Academy of Pediatrics endorses these actions as “equity in health care.”¹⁷ But, just like physicians who don't categorize abortion as “health care,” he declines.

What is a government to do if the pool of physicians doesn't include enough who are willing to perform abortions, or have surgeons who see this teenager's request not as medicine but as mutilation?

Should the government revoke medical licenses for a refusal to provide “standard health

care” or allow freedom of conscience for doctors?

The government of Alberta, Canada, recently voted to reject a law protecting doctors. A related report noted that “a possible solution to prevent such debates from cropping up at all would be to screen out would-be doctors who say they would object to providing health care on conscience grounds before they even get to medical school.” A bioethicist with the Ontario Research Chair in Bioethics suggested, “Medical schools, pharmacy schools should go out of their way to basically eliminate applicants who they know already will not provide these services.”¹⁸

ICR's Approach to Biology Fosters a Culture of Life

An adoption of Darwin's survival-of-the-fittest selectionist worldview produced the eugenics disaster and millions of aborted children. ICR's approach to biology disowns Darwin's death-driven concept of natural selection in exchange for an undiluted culture of life. By rejecting notions that natural selection is God's method to conserve the purity of a gene pool, the core tenet of Darwinian medicine would be excluded from any ICR approach to medical research or practice.

A sound way to do basic medical research is to methodically reverse-engineer living systems that can be framed in design-based models. ICR believes the astounding innate healing, repair, or regenerative capabilities of living creatures are not the “result of past episodes of natural selection” but were purposefully engineered by the Lord Jesus... for His glory. ✨

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Q: How Did Coal Seams Form?

A When I drive from Dallas to Colorado, I sometimes see southbound trains loaded with coal from vast reserves buried in Wyoming rock layers. This coal helps power the homes and industries of the almost eight million folks in the Dallas-Fort Worth metroplex.¹ How did all that coal get buried there?

For a society that uses so much coal, we seem to know very little about its origins. Truth be told, coal formation holds mysteries. We can't travel back in time to see what happened, but we can do experiments and follow clues that refine our ideas.

What clues does the standard story offer? Peat has played too big a role when it comes to explaining coal. According to the United States Geological Survey, "Peat is the precursor to coal."² How do they know? Peat does not form coal today. Peat bogs and coal beds both contain bits of wood, but they have many other differences.

For example, peat bogs are riddled with roots. Coal seams show none.³ Today's peat bogs don't extend across state-size areas like coal seams do. The upper surfaces of peat bogs have little rises and pits, but coal seams have razor-sharp upper boundaries. Plus, sharks don't swim in peat bogs, but coal seams have shark, fish, dinosaur, and seashell fossils.⁴ The peat-bog yarn unravels.

These clues suggest a more catastrophic origin for coal. The 1980 eruption of Mount St. Helens was violent. It leveled a forest, dismembered its trees, and washed tree trunks into a lake. Jostling trunks soon rubbed off their bark, and bark peat built up at the bottom of the lake. During the Genesis Flood destruction, more jostling of more trees would have made more peat.

Some coal seams in the eastern U.S. are made almost entirely of tree bark. A watery catastrophe thousands of times bigger than Mount St. Helens could have begun the sorting process that led to these eastern coals. Lake-bottom bark would need to be buried and heated to coalify. The rapid burial of massive volumes of plant material torn loose during the Flood accounts for today's extensive, buried coal layers.

Anyone with mud, sticks, and fire can make a coal-like material called *charcoal*.⁵ Geological coal and charcoal are both black, but coal seams have tiny layered structures. Nobody knows for sure what causes this. Experiments with water and coal suggest that different

Coal mine in the Powder River Basin of Wyoming.

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article highlights

- The world's massive coal reserves appear to have formed from buried plants rather than peat.
- The Mount St. Helens eruption showed how a coal seam would begin.
- Noah's catastrophic Flood accounts for the world's coal.

temperatures change the chemistry.⁶ Often these experimenters presume millions of years of buried peat. Flood-friendly researchers might someday come closer to copying the coal creation process.

The Powder River Basin coal seam in Wyoming is up to 200 feet thick and extends for 75 miles!⁷ Its energy can keep powering North Texas air conditioners through many more sizzling summers. An immense effect like this requires an immense cause. What blasted, broadcast, buried, then baked so much ancient plant matter in coal seams around the world?

The Bible clearly says the waters of Noah's Flood covered the whole earth (Genesis 7:19). While a few mysteries stay buried with the coal, the Flood gives the large-scale, catastrophic, watery origins that coal seam clues demand. ✎

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article highlights

Interrupting Business as Usual



- A select population of migratory barnacle geese relocated their breeding grounds after a hydrogen bomb explosion interrupted their historic habitat.
- The Genesis Flood came upon unprepared people as an explosive surprise—interrupting millions of people’s lives. Only eight humans survived.
- Christ’s return will also be a surprise for humanity, interrupting their business-as-usual lives with His return as Earth’s Redeemer and Judge.

Sometimes “business as usual” is interrupted by an explosive surprise.

For many years, Novaya Zemlya, a group of Russian islands in the Arctic Ocean, provided a calm breeding habitat for a population of barnacle geese (*Branta leucopsis*).¹ For these geese (also called *Hvitkinngås*, meaning “white-cheek goose”), business as usual was interrupted on October 30, 1961, when the USSR tested “Ivan” (the “Tsar Bomba”). This RDS-202 hydrogen bomb was the largest man-made explosion ever detonated in history. Thankfully, Novaya Zemlya’s barnacle geese had already migrated south before the explosion. Apparently during the following spring (when migratory geese returned north for breeding), they sensed something was wrong, so they relocated new nests to the Baltic Sea’s northern shores, more than a thousand miles south. They now spend summers at the islands and coastlands of Scandinavia and Estonia, and they spend winters in and around Holland.¹

To creationists, who repeatedly refute uniformitarian assumptions, the Genesis Flood illustrates this same reality. The normal lives of Noah’s family and everyone else on Earth were “explosively” interrupted by a devastating flood.

Even the Lord Jesus Christ’s allusion to the “days of Noah” illustrates how the Gene-

sis Flood clashes with uniformitarian thinking. The Lord emphasized this point using words that surely surprised His audience.

But as the days of Noah were, so also will the coming of the Son of Man be. For as in the days before the flood, they were eating and drinking, marrying and giving in marriage, until the day that Noah entered the Ark, and did not know until the flood came and took them all away, so also will the coming of the Son of Man be. (Matthew 24:37-39)

This description of the days of Noah was not what Christ’s immediate audience expected, because they pictured that time as wicked, evil, and “filled with violence” (Genesis 6:5, 11-13), and it was. However, Christ described Noah’s “business as usual” days—people eating, drinking, and getting married (Matthew 24:38; Luke 17:26-27).

Likewise, when Christ compared His return to Earth to “the days of Lot,” His immediate audience likely pictured the vileness of Sodom and Gomorrah (Genesis 18). Yet, Christ described the days of Lot as a time of people eating, drinking, buying, selling, planting, and building (Luke 17:28-29). In other words, Christ described it as business as usual—a group of people living carelessly, ignoring God, and not expecting an explosive interruption.

Today, Scripture-scoffing secularists

ignore God and His promises, including His promise to return to Earth in judgment, just as they routinely reject Earth’s geological history as the result of the Genesis Flood (2 Peter 3:1-7). But Earth’s geological past hasn’t been a uniformitarian business-as-usual history. Rather, it was enormously marked by the Genesis Flood, an inescapable fact that creation scientists have detailed time and time again.²

We need the historical and authoritative witness of the Genesis record so we can know with confidence what really happened during the days of Noah, because Earth’s history hasn’t always been “business as usual.” Christ surprised the world with a global flood once, and He will interrupt daily routines again on some future day when He returns to Earth as Redeemer, Judge, and King of our world. ✎

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DEATH, TAXES, AND A VALID WILL

HENRY M. MORRIS IV



The distinguished Benjamin Franklin once wrote that “in this world nothing can be said to be certain, except death and taxes.”¹ I’ve often grumbled about the truth in this statement while wrestling with my tax filings each year. I suspect many of our readers can relate. But taxes can’t really compare to death—the first and last great enemy of all mankind (Genesis 2:17; 1 Corinthians 15:26). Death entered the world as a consequence of Adam’s sin, and God’s once-perfect creation has groaned under the curse of death and decay ever since (Romans 5:12, 8:20-23).

But for those who have been redeemed by Christ, physical death is simply an instant transition into the joyful presence of our Savior (2 Corinthians 5:6-8). No doubt, many of us have experienced the passing of fellow believers, friends, and loved ones. While the sorrow may be heavy at times, with true joy we can celebrate a life lived for Christ and look forward to that great day when He reunites us in heaven (1 Thessalonians 4:13-18). What a blessing!

On such occasions I often find myself reflecting on my own circumstances—a reminder from the Lord, perhaps, to focus anew on things of eternal value. While we live in a material world, the resources God has granted to us should be used for His work if we are to truly honor and please Him. But without proper forethought and planning, the assets we leave behind may not be handled appropriately for God’s re-

maining work on earth.

The most important thing a Christian can do to prevent this from happening is to have a valid written will. Surprisingly, studies have consistently shown that over half of all Americans do not have one. In these situations, state laws of “descent and distribution” take over and a judge decides who will administer your estate and who will serve

- Provide for your churches (1 Corinthians 16:2)
- Support Christian ministries (1 Timothy 6:17-19)
- Share in general charity (2 Corinthians 9:8-9)

So, in obedience to the Lord and His biblical model, please make a will if you don’t already have one.

ICR’s Planned Giving link at ICR.org/donate is a great place to start where you can request helpful brochures and use our interactive modules to plan a well-written will. Most people can use one of the many online will-making programs to produce a legal, state-specific will for less than \$100. And if you need expert help, ICR can recommend a knowledgeable attorney in your area. In either case, it’s easy to include a simple bequest to ICR that ensures a portion of your assets are shared with our ministry. You can be confident it will be put to good and effective use in our work for the glory of our Creator, the Lord Jesus Christ.

Be prepared for your homegoing. Care for your family. Protect your God-given resources. And share bountifully with God-honoring ministries like ICR. We can help—please visit ICR.org/donate, or contact ICR today at **800.337.0375** or stewardship@icr.org.

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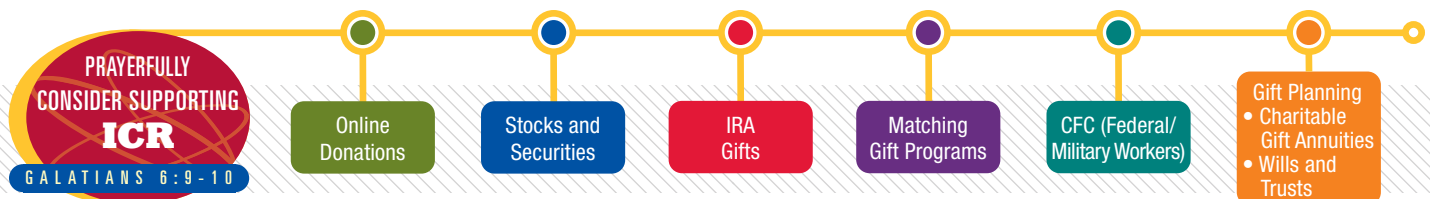
article highlights

- Death is the enemy, but Christians can rejoice in their transition into the Savior’s presence.
- A valid written will ensures your remaining assets will be stewarded for worthy purposes after your homegoing.
- There are multiple resources that can help you make a will.
- If you would like to share a portion of your assets with ICR, we can help you know your options.

as the guardian of your minor children—actions which often deplete your estate with unnecessary expenses and may lead to an undesired result. And such state-written wills don’t allow bequests of any kind—to your friends, your church, or to ministries that honor the Lord Jesus Christ like ICR.

Scripture teaches a simple model to distribute remaining earthly assets for God’s glory:

- Take care of your family (1 Timothy 5:8)



Visit ICR.org/give and explore how you can support the vital work of ICR ministries. Or contact us at Stewardship@ICR.org or **800.337.0375** for personal assistance.

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I just finished reading the edifying, well-written, and clearly explained booklet by [Dr.] Jake Hebert *The Climate Change Conflict*. I knew nearly all the pieces from reading elsewhere and ICR's papers on the Milankovitch theory. **However, I never appreciated the interaction of that work on the Milankovitch theory with climate change alarmism.**



Dr. Hebert's clear explanation was quite an eye-opener. Furthermore, I'm glad to have this little booklet as one to share because it describes several very important scientific issues in such a clear and concise manner.

— E. R.



I think *Days of Praise* is probably the best devotional I've ever had... and I'm very grateful. I believe they've been a blessing to



many, no doubt.

— W. B.

I've been blessed by ICR for so many years. I can't remember when I began to receive the daily devotional, *Days of Praise*, and the monthly magazine, *Acts & Facts*! I just wanted to let you know that I would love to continue receiving these

until the day the Lord calls me home. **The**

information in *Acts & Facts* has given me more evidence of special creation to present to the indoctrinated youth and, sadly, even many elderly people who have been convinced that the creation came out of nothing with no one to cause it! Real scientists like the ones at ICR are vital to the conviction of the Christian worldview. I have become a faithful supporter of the ministry, and I intend to continue.

— F. C.



★★★★★ Incredible place full of research and evidence of young-earth creation. You could spend as little as one hour

breezing through with little kids or an entire day as an adult clicking through and reading each touchscreen computer and taking in every display. I don't want to share too much because you just need to go and take it all in!

— M. B.



Image credit: Joseph Haubert

★★★★★ I wasn't sure what to expect when I visited

the ICR museum. I found it to be an incredible experience that strengthened my faith and helped me understand the Bible better. Two of the things I really appreciated were the planetarium shows and the Ice Age show. I appreciated seeing how they proposed the Ice Age may have happened and how the Bible may support this idea with various verses in Job. **I can tell you that I left a chunk of my wallet in the bookstore, and I haven't been disappointed with the resources I bought.**

— C. J.

★★★★★ My family went [to the Discovery Center] today, and we really enjoyed the high-quality exhibits and all the thought that went into them and the museum overall. We paid for the planetarium show about the solar system and thought it was well done and informative...We really liked the Noah exhibit, and the robotic *T. rex* was cool! All my kids from teenage years to seven years old enjoyed our time there, and we each learned something new to reinforce that the Bible is accurate and is confirmed by good-quality scientific work. **I have a genetics degree and didn't find any problems with the way scientific information was presented.** I'd highly recommend you go!

— D. W.



Editor's note: Due to an oversight, the image attribution was omitted on page 8 of the February *Acts & Facts* issue for Yongsung Kim's artwork *The Hand of God*.

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BGTTHB
- *Guide to the Universe*
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- *Dinosaurs: God's Mysterious Creatures*
BDGMC
- *Space: God's Majestic Handiwork*
BSGMH
- *Animals by Design: Exploring Unique Creature Features*
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