# Creation Matters

**Volume 17 Number 5** **September / October 2012**

**— A publication of the Creation Research Society —**


## Announcing The Seventh ICC August 4–8, 2013

Registration is now open for *The Seventh International Conference on Creationism* (ICC) to be held August 4–8, 2013, in Pittsburgh, PA. Due to the large number of excellent papers which have been received, the conference next year has been extended into a fifth day. Attendees may choose to attend in person, or new this year, online via Webinar.

The daytime sessions will highlight original, peer-reviewed scientific papers by the world's leading creation researchers. The evening sessions will feature Drs. Steve Austin, Steve Taylor, Paul Nelson, and Mark Horstemeyer, all of whom will speak on topics at the forefront of Young Earth Creation Science.

Information about the conference location, accommodations, schedule, and registration details can be seen at the ICC website (www.creationicc.org). Significant savings are available to those who register before May 1. All attendees (including those participating online) will receive a digital copy of the proceedings.

Since the very first conference, in 1986, the ICCs have contributed immeasurably to the continuing development of a creation model of origins.

The ICC is sponsored by the Creation Science Fellowship of Pittsburgh, PA (www.csfpittsburgh.org).

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## McCann: Mysterious, Maybe Magnificent

**by Paul G. Humber** [1]

The Lone Ranger of TV's bygone years was described as "one of the most mysterious characters to appear in the early days of the west…a fabulous individual," but Alfred Watterson McCann had the additional advantage of being a real person. He was also somewhat mysterious, but his book, *God — Or Gorilla*[2] makes him close to being magnificent.

Born in the "west," as in western Pennsylvania (Pittsburgh, 1879), he received a Doctor of Letters degree from Duquesne and a Doctor of Law degree from Fordham. He also was a spokesman on WOR radio for a considerable time and was a leader in the crusade for clean foods.[3]

Why have I described him as being close to magnificent? He was miles ahead of his

*... continued on p. 2*

## CRS to Mark 50th Anniversary

**1963–2013**

The Creation Research Society (CRS) is turning 50! The CRS is a professional organization of trained scientists and interested laypersons who are firmly committed to scientific special creation. The Society was organized in 1963 by a committee of ten like-minded scientists, and has grown into an organization with worldwide membership.

One primary function of the Society is the publication of a quarterly, peer-reviewed journal which contains:

- ✓ The results of cutting-edge research into important aspects of scientific special creation
- ✓ Comprehensive review articles dealing with advances in scientific knowledge, and historically important topics pertaining to creation and/or evolution

The CRS also supports the creation community by:

- ✓ Conducting research to develop and test creation models
- ✓ Providing research grants and facilities to creation scientists for approved research projects
- ✓ Distributing a popular-level, bimonthly publication
- ✓ Maintaining a well-stocked online bookstore
- ✓ Providing an email listserv for members to discuss important creation-related topics

It has truly been a blessing to serve others for nearly a half century. For more information about the history of the CRS, you are encouraged to visit www.creationresearch.org/hisaims.htm

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## McCann

*...continued from page 1*

time in recognizing the impotency of evolutionary speculations.[4] Not only did he express himself in print about the Piltdown Hoax long before the evolutionary community owned up to the fraudulency,[5] but he also exposed the evolutionary guru of the era, Henry F. Osborn, as an unworthy witness for the truth. Additionally, his words written in the early 1920s seem almost prophetic in describing the present evolutionary dominance and bigotry. He wrote, for example (p. 272):

> Preaching this doctrine, the materialistic evolutionists, falsifying their unscientific deductions and misrepresenting the honest research of the laboratories, have so influenced popular education, including the textbooks of the schools and the formation of public thought through the press, that there is left scarcely any channel of public information through which does not flow the false conviction that man's origin as a descendant of the ape has been "scientifically demonstrated."

### Eager to believe

Why is it that we humans are so ready to believe evolution? Could it be that we do not like the sexual restrictions put on us by our Creator? If we can delude ourselves into believing that everything came from nothing (without reference to God), then why not live like animals?[6] The Lord Jesus Christ, the Creator and Regulator of Sex,[7] is also "dissed" today like He was during McCann's time, like He was 2,000 years ago on a cross, and even like He was 6,000 years ago when He tested our first parents — who in turn disobeyed Him.

On pages 3–4 and 11 in his book, McCann wrote,

> In propping up the ape-jaw and human-cranium of the 'reconstructed' Piltdown man the opinions of various scientific authorities are set forth with such flourishes as to insinuate the impression that the scientists are singularly agreed among themselves in the matter of Mr. Piltdown's affairs and their significance.
>
> …
>
> The writer suffers quite as much amazement as that reported by Mr. Dawson, to discover the 1921 illustrations of the Piltdown man as they continue, unashamed, to adorn pages 142, 143 and 145 of Professor Henry Fairfield Osborn's latest contribution to science.

There are at least 17 illustrations in McCann's book. In the one that appears opposite page 14, there is a picture of a red howler monkey. McCann's caption reads as follows: "It was one of those tails that Haeckel cut off in fabricating his embryo illustrations." Many people do not realize that pre-Hitler Germany was strongly influenced by evolutionary thought (e.g., considering themselves as being the most fit to survive), and Haeckel was a leader in this effort. Falsifying drawings of embryos was another evolutionary fraud — perhaps even worse than the Piltdown Hoax.[9]

### Pasteur, Haeckel, Wells

On pages 99–100, McCann gives this delightful quotation concerning the scientific giant Louis Pasteur:

> "These are the living springs of great thoughts and great actions," said Pasteur. "Everything grows clear in the reflection from the Infinite. The more I know the more nearly is my faith that of the Breton peasant. If I could know all I would have the faith of a Breton peasant woman. Happy the man who bears with him a divinity, an ideal of beauty and obeys it; an ideal of art, an ideal of science, an ideal of country, an ideal of the virtues of the gospel."

Pasteur was a Roman Catholic, and I suspect McCann was, too. It is nice to see him indirectly affirming the Gospel using the words of Pasteur.

A few pages further McCann wrote (p. 105, emphasis added):

> Here, again, they were being influenced by Haeckel, who developed the biogenetic principle by which he sought to show that man before his birth passes through twenty-two stages of development, later brought up to thirty stages, corresponding with the same number of stages of his ancestors, including the whole

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> outfit, jellyfish, tadpole, etc., terminating in the monkey and through the monkey by way of *Homo **stupidus***, into man.

It seems that "*Homo stupidus*" was a label created by Haeckel, but I rather suspect that McCann was using it also somewhat mockingly of evolutionism itself.

As stated in the title, McCann was somewhat "mysterious." There is some mystery surrounding his early death,[10] and his faith is not everywhere apparent. There is a glimpse into his heart, however, from this passage (p. 142):

> [H.G.] Wells does not like the idea that from a state of grace man fell after he had been endowed with a free will to do good or evil as he might see fit. Wells does not like the Incarnation, the Atonement, the Resurrection. He dismisses Christ altogether. In his ape-man pedigree there is no place for Christ. He will accept none of the clear and uncompromising demands made by Jesus of Nazareth for an absolute faith in Himself. The Son of Man is to be described, if described at all, as the Son of Ape.

It seems clear from this that McCann had regard for the Lord Jesus and scorn for any notion of connecting Jesus to evolution.

Returning to Henry Fairfield Osborn, President of the New York Zoological Society and president of the American Museum of Natural History, as being a poor witness for the truth, one may consult pages 265–267, where McCann wrote,

> The whole story of the charges concerning the faking of charts, the attempt to discredit scientific witnesses and the manufacture of data designed to create false impressions is fully covered by the U.S. Government report of the hearings...

He also offered the following conclusion (p. 267, emphasis in original):

> With all this evidence to assist him in the formulation of a correct opinion, Professor Osborn was dismally and abysmally wrong. *Yet back there 500,000 years ago, with not a solitary fossil relic of any kind to aid him, he remains sublimely certain of the scientific accuracy of his opinion that man has descended from an ape of which there is no living type or fossil remains in existence*.

## Lyell's *Principles*

But was it not the overwhelming evidence of science that persuaded so many people so quickly? No. McCann (p. 314) referred to Lyell's *Principles of Geology* which:

> …appeared in 1830, when Darwin was twenty-two years of age. Lyell's conclusion was that the continuous operation of geological processes (volcanic eruptions, rivers wearing away their banks, etc.) over an almost incalculable period of time, would be sufficient to explain how the earth had assumed its present physical appearance. This conclusion spread like flame in straw, and with it the acceptance of inferences which made the Bible look like the Official Organ of Falsehood. True to Darwin's prophecy it produced a revolution but not altogether like the revolution which Darwin anticipated.

**It seems clear … that McCann had regard for the Lord Jesus and scorn for any notion of connecting Jesus to evolution.**

McCann did not witness Hitler's forced survival-of-the-fittest, as he, McCann, died mysteriously[10] at age 52, but his words, again, seem almost prophetic. A little further down the page 314 we read,

> The geologists, eagerly adopting Lyell's views, began to give to man an age of at least 1,000,000 years, and to the world an age of "many" millions of years. So rapid was the growth of this idea that by 1872 Lyell's work had gone through eleven different editions, and had provided the "enemies of religion" with an arsenal of "scientific" shells to hurl at the "six days" of the Bible. The "struggle for existence" was already a phrase, galloping on its way to war.

## Close to magnificent?

Above, I wrote that McCann's book, *God — Or Gorilla*, was "close to being magnificent." The reason is that he, though giving some arguments in defense of a young earth view, seemed to regard an old earth view as being possible; but there are many *scientific* reasons for disbelieving old-earth scenarios.[11]

There are also *biblical* reasons for rejecting old-earth-ism. For example, the One who owns all of our bones as Artist and Creator spoke these words about our first parents: "But from the beginning of creation, 'God made them male and female'" (Mark 10:6). The Lord Jesus did not place Adam and Eve at the end of creation — but at the beginning! If the earth is 4.54 billion years old (as many profess), then Adam and Eve appeared at the "end" of creation as we now know it. Why? Because 6,000 years is a mere drop in the bucket when compared to billions of years, and our parents then would have arrived on the scene after 99.99% of earth's history had passed!

So why would Jesus, *Truth* Personified (John 14:6), say that our first parents were "from the beginning of creation" if they actually came at the end? Should we believe the One who was there or Darwin who was not? Darwin died, as did Jesus, but there is a huge difference! Jesus, also *Life* Personified, conquered death three days later, and He will someday raise from the dead to face Him everyone who has ever walked this planet — including Darwin, Haeckel, Osborn, and McCann (John 5:28–29).

Jesus came as a baby the first time, but He will come as King of Kings the second time around. Continue trusting the lie if you choose, but I join with Joshua:[12]

> And if it is evil in your eyes to serve the LORD, choose this day whom you will serve, whether the gods your fathers served in the region beyond the River, or the gods of the Amorites in whose land you dwell. But as for me and my house, we will serve the LORD.

## References and notes


1. Paul is the author of various books, publications (cf. Amazon.com), and YouTube videos, He may be contacted to give presentations about the Global Flood, the Young Earth, and "414 Prophecies, Appearances or Foreshadowings of Christ in the Old Testament."
2. *GOD—OR GORILLA* by Alfred W. McCann, Devin-Adair, NY, 1925. For an online version, see www.ebooksread.com/authors-eng/alfred-watterson-mccann/god-or-gorilla--how-the-monkey-theory-of-evolution-exposes-its-own-methods-ref-acc.shtml. Photograph included with this article was adapted from one which appears following p. 352 in McCann's Book.
3. Richardson, L. 2004. Behind the one-minute pitches, a radio legacy. *The New York Times*, Sep-

tember 3, 2004. Retrieved Nov. 4, 2012, from www.nytimes.com/2004/09/03/nyregion/03profile.html?_r=0. According to this report, Mc-Cann, who was the grandfather of Patricia McCann, "went on WOR in 1927 to expose the unsavory practices of the American food industry, which was doing bad things like putting black shoe polish in chocolate and deodorizing rotten eggs. He also ran a laboratory in Manhattan where foods were tested before they received his approval or disdain."

4. In his *Introduction*, p. vii, McCann wrote, "Of far greater significance and of more enduring influence is the ape-man hoax now scattering its corruptions throughout the world and impressing its deceptions upon the world's 'best minds.'"

5. The Piltdown fragments supposedly were discovered in 1912, but McCann was exposing them as fraudulent within about a decade — or less. The *Introduction* in his book was given on 12/25/1921, but the evolutionists did not formally acknowledge the fraud until 1953 — more than 30 years **after** McCann — and 40 years **after** the supposed discovery!

6. McCann asked on page 272, "If a man is a brute, a THING, whose origin and destiny are twelve earthy salts, why should he not live like a brute?"

7. See my YouTube video: *Jesus is the Creator of Sex — and Regulator!* at www.youtube.com/watch?v=sbYzW-L8mac.

8. This is not a denouncement of the German people, as the author himself is partly of German descent, but many people from many countries have for decades believed the lie of godless molecules-to-man evolution. The willingness of man to believe in lies is a sad commentary on our human condition.

9. For more about Haeckel and evolutionary bigotry, see my article, *The Ascent of Racism*, at www.icr.org/article/ascent-racism/.

10. Potter, G. 1932. Analytic suggestions about Alfred W. McCann. *Psychoanalytic Review* 19:454–461. Potter stated, "Newspapers described the death of Alfred W. McCann as inexplicable. He had been seemingly so well. Mr. McCann, sponsor of pure food, was a crusader. Like all real crusaders, Mr. McCann's approach to his work was an emotional one. Like all successful crusaders that emotional approach was added to by knowledge and skill. But was Mr. McCann, dying at fifty-two years of age, as successful in relation to himself as he was in his work? For though his work had to do with health, he died in the prime of his days."

11. Humber, P.G. (editor). 2005. *Reasons to Affirm a Young Earth.*. May be downloaded from www.amazon.com/gp/product/0985516917

12. Joshua 24:15.

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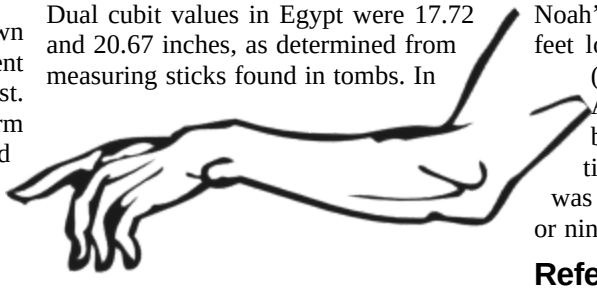
# Math Matters

**by**
**Don DeYoung, Ph.D.**

## How Long Is a Cubit?

The cubit is one of the earliest known standards of length, used in ancient Israel and throughout the Near East. It was originally the length of one's forearm between the tip of the middle finger and the elbow. The word cubit comes from the Latin word for elbow and the Hebrew term refers to the forearm. The term occurs more than one hundred times in the Old and New Testaments to describe structures and distances.

Nations varied somewhat in defining the cubit's exact length, and both short cubits and long or *royal* cubits were common. Dual cubit values in Egypt were 17.72 and 20.67 inches, as determined from measuring sticks found in tombs. In



Babylon, 20.806 inches was a common cubit length (Achtemeier, 1985).

There is a fascinating clue to the length of the cubit from the Old Testament and archaeology. Hezekiah's famous Siloam water tunnel is referenced in 2 Kings 20:20 and 2 Chronicles 32:3–4. It was built around 700 B.C. to provide water for Jerusalem during a siege by the Assyrians under Sennacherib. This tunnel is hewn from solid rock and is a memorable hike for visitors to the old city of Jerusalem. When I walked the tunnel in 1995 by flashlight, there was a foot depth of moving water along the entire length of one-third mile, or 1,749 feet.

Originally there was a carved inscription near the tunnel outlet into the Pool of Siloam within the city wall. This *Siloam Inscription*, now in the Archaeology Museum of Istanbul, Turkey, records the tunnel length as 1,200 cubits. Comparison with the actual length yields a cubit measure of about 17.5 inches. The number is often rounded to 18 inches or 1.5 feet.

With a 1.5-foot value for the cubit, Noah's Ark measures an impressive 450 feet long, 75 feet wide, and 45 feet high (300x50x30 cubits; Genesis 6:15). The Ark may well have been the largest building project in history up to that time. Also, the biblical giant Goliath was over six cubits tall (l Samuel 17:4), or nine feet.

### Reference


Achtemeier, P.J. (ed.) 1985. *Harper's Bible Dictionary.* Harper & Row, San Francisco.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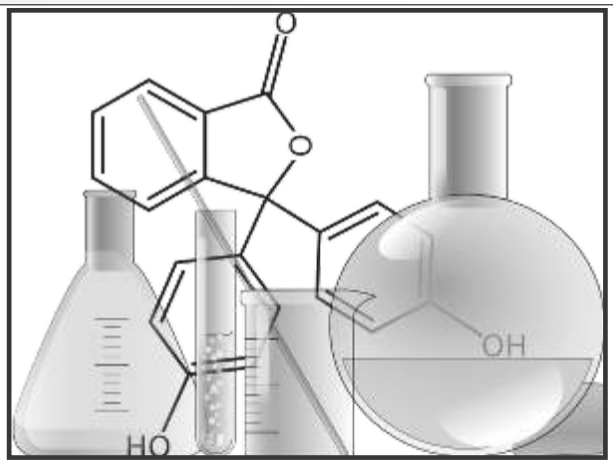
...without excuse!

# Testimony of the Origins Divide

**by Timothy R. Stout**

An interesting article appeared fairly recently in *BioScience* magazine titled, "The Origins Divide: Reconciling Views on How Life Began" (Phillips, 2010). Although the title speaks of reconciling the various divergent views on the origin of life, in truth there was little if any reconciliation in the article. Rather, it offered a history of our understanding of abiogenesis. Seemingly, whenever someone would offer a proposal regarding any facet of abiogenesis, there would soon be another person giving plausible reasons to question the proposal's viability. This pattern continues until the present.




Apart from a hopeful statement at the end of the article regarding the recent emergent systems approach, the article could well have been written by a creationist. Here are a few quotes from the opening paragraphs:

> Deep divides in opinion are found in almost all areas of origin-of-life research.
>
> If we're going to make any progress, we really have to be critically honest about what we don't know. … And that's just about everything.
>
> The questions surrounding life's origins are indeed vast and, for the most part, unanswered.

## Chicken-and-egg problems

Then, regarding the large macromolecules which are so critical to the functioning of living organisms, she commented,

> In modern life, all of these molecules and processes are so intertwined that it's difficult to imagine how any of them could have arisen without the others already in place. Chicken-and-egg problems abound.

The remainder of the article discussed all the major approaches to the various stages of abiogenesis. Then, very quickly the discussion led to the big, fundamental divide facing researchers today, viz., the argument over whether the origin of life was information first or metabolism first. However, study has revealed serious problems with both of these situations. The molecules which are proposed to have arisen in the metabolism-first scenario are simple enough to have achieved some level of concentration in plausible prebiotic chemical processes. However, the fact that these molecules do not copy themselves is a critical shortcoming since reproducibility is a fundamental, required characteristic of life.

By contrast, the molecules associated with an information-first scenario are so complicated that they have never been produced by chemical processes which can be reasonably associated with prebiotic circumstances. The meager positive results occasionally observed experimentally invariably are found to have required extensive human intervention. Indeed, Phillips quoted Jim Cleaves of the Carnegie Institute for Science who said that whenever researchers manage to synthesize an interesting molecule, "it's such a complex and kind of contrived experiment, it's hard to really swallow."

## Hail-Mary pass

Finally, after six pages of pointing out major problems at every level of abiogenesis, Phillips endeavored to end the article on an optimistic note by discussing the new "emergent systems" approach. However, this attempt is nothing more than the equivalent of a desperate "Hail Mary" pass by the losing team in an attempt to win the game in the final seconds.

In this approach, scientists "toss dozens or hundreds of chemicals together and see what happens." John Sutherland of the University of Manchester, United Kingdom, declared, "We spent fourteen years exploring all that assembly chemistry and were largely extremely unsuccessful…" Then, using this "systems" approach, they discovered a method to make RNA nucleotides, the only successful effort by abiogenists to make nucleotides (Powner et al., 2009).

However, they did not just step back and watch the synthesis happen. In order to avoid a series of problems, not the least of which was the formation of tar, they had to monitor and control the process very carefully. In another article, Benner and others simply chalk this up as another example of an experiment which is supposedly plausible for a prebiotic scenario, but which realistically requires far too much human intervention to be suitable (Benner et al., 2012 ).

Sadly, this is the methodology that many abiogenists are hoping will finally give them some sort of success to talk about. Earlier, Phillips quoted Jeffrey Bada of Scripps Institute in La Jolla, California in his analysis of a certain proposed theory of abiogenesis,

> You might be able to do a reaction here or there, but any sort of comprehensive, sustained chemistry has never been shown.

When one considers the multitude of issues involved in throwing together hundreds of miscellaneous chemicals to see what happens, it seems that one should expect Bada's observation to apply to the emergent system approach as well. Indeed, Sutherland was not able to make any progress in well over a decade of his emergent system experiments unless the process also included extensive human intervention.

I find it fascinating that sixty years of study in abiogenesis has not provided the anticipated solutions to the problem of life's origin, but just the opposite. We now have a rather technical understanding of just how unexpectedly complex and interdependent life is. Rationally, the abundance of "chicken-and-egg problems" implies the necessity of all of these components making a simultaneous, first appearance, in a fully-functioning interdependent form. If there were no religious implications, the evidence would be sufficient to make the case and this would be the end of the discussion.

However, there are religious implications and this changes the entire character of the discussion. Romans 1:18–22 describes how sinful men deliberately suppress the truth about God as has been

revealed by the creation. In 2 Thessalonians 2:10–11 we find an application of what seems to be a general principle, that when men do not love the truth so that they might be saved, God gives them over to delusion to believe "the lie."

## Rational conclusion

There is no question that those scientists who work in abiogenesis believe in a natural origin of life. However, what should be the proper response when one considers (1) the long history of failed experiments, (2) the open acknowledgement of many insurmountable problems, and (3) the contradiction of virtually each proposed stage of abiogenesis by known scientific principles or observations?

It seems rational to conclude that those who believe in abiogenesis are deluded and, from God's perspective, truly have no excuse for their refusal to see Him revealed in the creation.

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# Matters of Fact... Chromosomes & Common Ancestry

**by Jean K. Lightner, DVM, MS**

*Editor's note: You may submit your question to Dr. Jean Lightner at jean@creationresearch.org. It will not be possible to provide an answer for each question, but she will choose those which have a broad appeal and lend themselves to relatively short answers.*

**Q Isn't common ancestry between humans and chimps ruled out by the difference in chromosome numbers (humans have 46, chimps have 48)? Shouldn't the alleged fusion of two separate chromosomes to form our Chromosome 2, that is supposed to account for this difference, cause serious problems such as infertility? Surely it is not possible for a fused chromosome, with its likely deleterious effect, to take over the entire human population.**

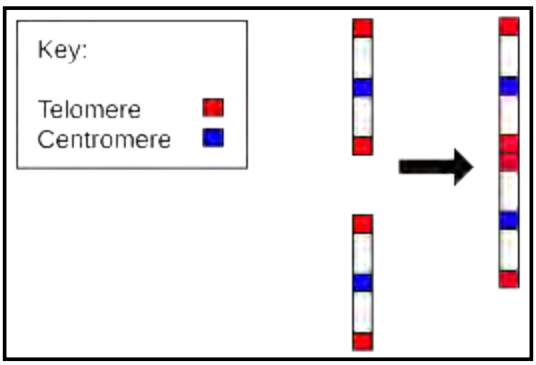


*Figure 1. Diagram of fusion of two chromosomes to form one. While early studies suggested that Human Chromosome 2 may have been formed by such a fusion, more recent research based on actual sequence data indicate that this is highly unlikely. Diagram courtesy of* Wikimedia Commons.

A Common ancestry between humans and chimps is ruled out by Scripture, where God tells us that man was created in His image (Genesis 1:26–31) on day 6. This was later on the same day that land animals were created. Adam was created directly from the ground and Eve from Adam's side (Genesis 2:7, 21–22).

The problem with using circumstantial evidence to support historical facts is that it can often be used to argue for more than one story. Further, in an effort to make our case, we might assume things that may not be in accord with the scientific facts. The above argument assumes several things that are inconsistent with our current knowledge of chromosomes. Chromosome number is not how we define a human being. It may be a little more specific than the number of digits on the foot, but not much. Several other mammals also have 46 chromosomes. About 1 in 1000 people carry a fusion and have 45 chromosomes. There have been a few documented cases where people carry two of the same fusion and have only 44 chromosomes (O'Neill, 2010).

In both humans and animals, individuals carrying one or more fusions are usually normal. There are some occasions where reduced fertility or infertility is evident, but in many other cases no such problems are discernible (Lightner, 2006). Further, there are examples where a fusion has "taken over" or become fixed within a species within a created kind.

For example, sheep (*Ovis aries*) characteristically have 54 chromosomes, while goats (*Capra hircus*) have 60. Since they are capable of interbreeding to form hybrids, they are considered to belong to the same created kind. Sheep appear to have not just one, but three fusions which have become fixed in the genome and thus characterize the species. Such occurrences should not bother us as creationists, since we need not assume that God designed the genome to remain static.

Given what is currently known about chromosomal rearrangements, it is not clear if the number of chromosomes we carry today is the same number with which we were created. If a chromosomal rearrangement happened early in Seth's line and they tended to marry within the family, it would be very easy for this rearrangement to be the only form that passed through the Flood.

Likewise, there is also no theological problem with humans and any other creatures having a very similar chromosome structure. After all, the number of chromosomes just tells us how the information is packaged, not what the information actually is.

Having said that, it appears evolutionists were a bit presumptuous about there being a fusion on Human Chromosome 2. Further research review by creationists has shown that the supposed fusion site does not really look like the result of a fusion of two chimp-like chromosomes. The place where the two ends (telomers) supposedly joined looks more like sequences that are found throughout the human genome (Tomkins and Bergman, 2011). The discrepancy between the pattern expected and what is actually there has even been noted by secular researchers who assume the fusion must have happened. The pattern is considered to be very degenerate because it doesn't match what they expected to see (Fan *et al.*, 2002).

Each chromosome normally contains

one centromere (Figure 1). When two chromosomes fuse to form one, there are two centromeres. For the new chromosome to remain stable, one of these needs to be silenced. The portion of Human Chromosome 2 that supposedly includes the silenced centromere has also been investigated. The DNA nucleotide sequence does not correspond to the centromere sequence in the chimp, nor is it analogous the sequences at other active centromeres in human chromosomes. In fact, this repetitive sequence is similar to a number of other regions on human chromosomes that are not part of a centromere (Tomkins and Bergman, 2011)!

We still have much to learn about chromosomes and how they behave over many generations. While the evidence of a fusion on Human Chromosome 2 was never a problem for creationists, its apparent absence is a problem for evolutionists. However, we should not expect that those who are committed to the idea of human and chimp common ancestry would consider this evidence as falsifying their unbiblical assumption. Still, many others who are less committed may find this scientific research very enlightening.

Our scientific understanding changes as we learn more, so it is important for creationists to keep up with the latest research, especially when it comes to the topic of chromosomal rearrangements. We should never be so consumed with "winning the argument" that we repeat information that is inconsistent with what we know from science. If we do, our poor arguments will reflect poorly on our Lord and on our brothers and sisters in Christ who recognize the importance of the creation issue. Hopefully, this brief article has clarified enough of what is known about this subject so we don't use obsolete arguments such as the one suggested by the question posed above.



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# Speaking of Science

*Editor's note: Unless otherwise noted, S.O.S. (Speaking of Science) items in this issue are kindly provided by David Coppedge. Opinions expressed herein are his own. Additional commentaries and reviews of news items by David, complete with hyperlinks to cited references, can be seen at: http://crev.info/. Unless otherwise noted, emphasis is added in all quotes.*

## Animal Models for Technology

Animals and microbes continue to inspire technologies that could provide better health and security.

**Cell switches and diagnosis** Want to get faster results from that blood test? *ScienceDaily*[1] has a headline to perk your interest: "**Bioengineers design rapid diagnostic tests inspired by nature.**" It only gets better from there:

> **By mimicking nature's own sensing mechanisms**, bioengineers at UC Santa Barbara and University of Rome Tor Vergata have designed **inexpensive medical diagnostic tests that take only a few minutes to perform**. Their findings may aid efforts to build point-of-care devices for quick medical diagnosis of sexually transmitted diseases (STDs), allergies, autoimmune diseases, and a number of other diseases. **The new technology could dramatically impact world health**, according to the research team.

All living things use "nanoswitches" to respond to the environment and, the article continued, "[t]he **key breakthrough** underlying this new technology **came from observing nature.**" Cell surfaces, for instance, are covered with receptors that switch on and off depending on molecules detected. The technology is not only effective, it's beautiful: "The **beauty of these switches** is that they are **able to work directly in very complex environments** such as whole blood." In a few years, we may be able to get results of diagnostic tests in mere minutes instead of days.

**Enzymatic assembly lines** "**All systems go at the nanofactory**," reads another headline on *ScienceDaily*.[2] Researchers at LMU have created "little green men" in the form of fluorescent proteins that can help them guide delicate parts into position with nanometer precision. "Green light on protein assembly!" the subtitle exclaims. Assembling parts at this scale is like working in a hurricane, with all the thermal motions and molecular interference. As the researchers attempt to imitate what cells do routinely, they are also gaining insight into how

cellular machines work:

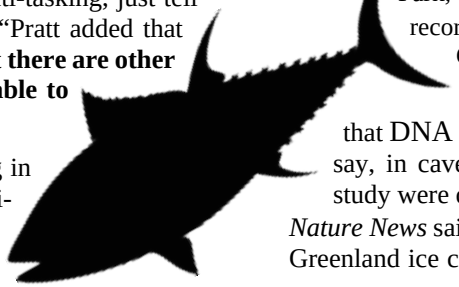
> If we can **efficiently build mimics of these "enzymatic assembly lines"** by bringing individual proteins together, we could **perhaps make a significant contribution to the exploitation of sustainable energy sources.**

**Go to the ant** Ants make good teachers, an article on *PhysOrg*[3] implies. They avoid "information overload" by sharing information in efficient ways. Complicated decisions, like comparing nest sites, are resolved by the entire colony rather than by lone geniuses. According to Stephen Pratt at Arizona State University,

> Living in a group is costly in many ways, so ants must get some benefit from doing it. **By sharing the burden of decision-making, colonies avoid the mistakes that a solitary animal makes when taking on too much information**. What's great about these ants is that we can see exactly how they do this, by making sure that no ant has to process more information than it is able to.

If you're reeling from too much multi-tasking, just tell your boss you want to go to ant class. "Pratt added that this is one problem ants can solve, but that **there are other problems ants face that we might be able to learn from.**"

**Robo-tuna** Tuna is not just for eating in sandwiches, but also for improving security. *LiveScience*[4] said,



> **Speedy tuna capable of swimming tirelessly** in the Earth's oceans have **inspired** the U.S. Department of Homeland Security to fund a **lookalike robot for underwater patrols**.

The shape of the tuna's body, combined with its strong muscles and short turning radius, make it an ideal model for maneuverability and efficiency. *Astrobiology Magazine*[5] said of the humble tuna fish,

> …they're **one of the fastest and most maneuverable creatures on the planet**, having **extraordinary abilities** at both high and low speeds due to their **streamlined bodies and a finely tuned muscular/sensory/control system.**"

A developer of the battery-powered surveillance device called BIOSwimmer said, "We're **using nature as a basis for design** and **engineering** a **system** that **works exceedingly well.**"

These amazing discoveries should cause us to honor and thank our Creator. It is unfortunate that our culture more often personifies the creation and avoids giving God credit for what He has done (Romans 1:21, 25).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## Upper Limit Set on DNA Age

Forget Jurassic Park; researchers say that DNA cannot last anywhere near 65 million years. Using bone fragments from extinct Moa birds that died between 600 and 8,000 years ago, researchers from Denmark and Australia calculated a half-life of 521 years for DNA in fossils. While slower than earlier estimates, this rate of decay would put an upper limit of 6.8 million years for the last trace of DNA, by which time all bonds would be broken. The finding was reported by *Nature News*,[1] *LiveScience*,[2] *NewScientist*,[3] and *PhysOrg*,[4] which said:

> This figure is incompatible with the idea of finding intact DNA in an 80 million year old dinosaur remnant, as was famously alluded to in the Steven Spielberg film Jurassic Park, but is much older than the currently accepted record of 450,000 to 800,000-year-old DNA from Greenlandic ice cores.

Some scientists are holding out the possibility that DNA could last a little longer under different conditions, say, in caves or permafrost. "The calculations in the latest study were quite straightforward, but many questions remain," *Nature News* said. The oldest DNA is claimed to have come from Greenland ice cores which are said to date back 800,000 years.


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## Convergence Convenience

Is "convergent evolution" a convenient escape clause for evidence that contradicts evolution? Evolutionary theory has a classification scheme that cannot lose.

Darwin's original tree diagram described "divergent evolution," a process beginning with speciation followed by the accumulation of variations that make the two branches more and more dissimilar over time. Animals with similar structures on the same branch are said to have "homologous" traits, because they derive from the same common ancestor. But the living world is filled with traits that resemble each other on different branches.

What caused that? Ah, the evolutionist replies, those traits are due to "convergent evolution." The similarities are "analogous" traits, because they do not derive from the same common ancestor.

With this classification scheme, evolution explains everything: if similar animals are related, they evolved; if they are unrelated, they evolved.

Is this a description of reality, or rather a convenient strategy for rendering evolution immune from falsification? Here are some recent examples of "convergent evolution" from the literature.

**Jelly-bird** *PhysOrg*[1] wrote, "**Ion selectivity in neuronal signaling channels evolved twice in animals.**" Sea anemones and birds have complex channels in their cell membranes called voltage-gated sodium channels, responsible for passing signals along nerves. Yet their respective branches on the tree of life supposedly separated 600 million years ago.

The channels in the marine invertebrates "**differ** from those found in higher animals, yet **show the same selectivity for sodium.**" Thus,

> **This study shows** that different parts of the channel **changed in a convergent manner during the evolution** of cnidarians and higher animals **in order to perform the same task**, namely to select for sodium ions. … **This demonstrates** that important components for the functional nervous systems **evolved twice** in basal and higher animals, **which suggests** that more complex nervous systems that rely on such ion-selective channels **could have also evolved twice independently.**

**Jelly-man** *Nature News*[2] claims that muscles, too, evolved twice. In discussing the alleged dual origins of muscles, Andreas Hejnol said,

> **Jellyfish move using a set of muscles that look remarkably similar to striated muscles in vertebrates**. However, new data show that **the two muscle types contain different molecules, implying that they evolved independently**.

Adding to the puzzle is the fact that comb jellies, on a different branch of the evolutionary tree, also have striated muscles, while most other invertebrates do not. "**Whether** this comb jelly's striated muscle is **related** to that of **jellyfish or vertebrates**, or **represents another convergent evolution event, remains to be determined.**" The claims become even more astonishing:

> These results suggest that, **despite their remarkable physical resemblance**, the striated muscles of **jellyfish and humans** are constructed using a **vastly different set of genes**. Steinmetz and colleagues h**ave revealed an extraordinary instance of convergent evolution — the evolution of highly similar traits in distantly related organisms.**

**Remarkable, exquisite, striking** Another paper in *Nature*[3] begins, "**In a remarkable example of convergent evolution**, insect species **spanning 300 million years of divergence** have **evolved identical single-amino-acid substitutions that confer resistance to plant cardenolide toxins**." This is not as dramatic a convergence as the previous two, because the trait involves one amino acid substitution, and the species are all insects. The authors, though, thought that this was really something. They said,

> [it]…**represents an exquisite case of convergent molecular evolution**, in which **distantly related insect species have evolved a common adaptive response** in a single gene.

What makes it "a **striking case of convergent molecular evolution**" is that the common trait occurred 4 times in unrelated insects that feed on the same kind of host plant. The authors dressed up this "**textbook example of convergent evolution** at the molecular level" with fancy terms like "**autoecological convergence**" and "**functional convergence**."

**The nose knows** The concept of convergent evolution shows up in two papers in *PLoS Biology* about olfaction (the sense of smell). Fruit fly maggots and humans could hardly be further apart in the evolutionary tree, but three Cambridge evolutionists found an "**unpredicted degree of similarity**" between their odor-detection equipment.[4] They said,

> Our results reveal an **unexpected degree of similarity** between the development of the olfactory systems in **vertebrates** and the ***Drosophila* larva**.

In another article in the same journal, Janelle Weaver commented on the surprise without using the "convergent evolution" phrase specifically:

> The findings reveal **surprising similarities between vertebrates and insect embryos** in the formation of olfactory networks.

She even ventured a philosophical explanation:[5]

> Because **neural circuits in other sensory and motor systems share similar properties**, the findings **may represent general mechanisms that underlie the development of networks in the nervous system.**

**Convergent bloodsuckers** A paper about fleas in *PLoS ONE* states, "**Blood feeding evolved at least ten times** within arthropods, **providing a scenario of convergent evolution** for the solution of the salivary potion."[6]

**Convergent crayfish** Another paper in *PLoS ONE* found convergent evolution in 12 subgenera of Appalachian crayfish.[7] They couldn't fit the subgenera into the same monophyletic tree, so they had to use convergence to explain the similarities. They referred to a previous study that "suggested that **convergent evolution was more common in invertebrates than previously thought.**"

Not only that, they figured that convergence is all over the place, confounding the work of taxonomists who try to figure out what's related to what:

> **We find convergent evolution has impacted** the morphological features used to delimit *Cambarus* subgenera. Studies of the crayfish genus *Orconectes* have shown gonopod morphology used to delimit subgenera **is also affected by convergent evolution**. This **suggests** that **morphological diagnoses** based on traditional crayfish taxonomy **might be confounded by convergent evolution** across the cambarids and **has little utility in diagnosing relationships or defining natural groups**. We further suggest that **convergent morphological evolution appears to be a common occurrence in invertebrates suggesting the need for careful phylogenetically based interpretations of morphological evolution in invertebrate systematics.**

**Convergent everything** When you find similarities between plants, invertebrates, and vertebrates, you have a real conundrum; yet all three unrelated groups show similar signaling pathways in their innate immune systems. This led Frederick M. Ausubel to reject divergence and embrace convergence:[8]

> It is **commonly reported that these similarities in innate immunity represent a process of divergent evolution** from

an ancient unicellular eukaryote that pre-dated the divergence of the plant and animal kingdoms. **However, at present, data suggest that the seemingly analogous regulatory modules used in plant and animal innate immunity are a consequence of convergent evolution** and reflect **inherent constraints on how an innate immune system can be constructed**.

In that statement, Ausubel used a common explanatory device to describe why traits found in vastly unrelated organisms end up being alike: *nature imposes constraints on how systems can be constructed.* For instance, if a creature wants to fly, it needs wings. That's a requirement. Birds, flying insects, pterosaurs, and bats, therefore, all had to obey that design requirement in order to fly. It could be argued, however, that animals could have evolved rockets or helicopter blades (discounting unpowered gliders like maple seeds). There's often more than one solution to an engineering challenge.

The Wikipedia entry on "Convergent Evolution" ends with a statement that reveals that "convergent evolution" is an incomplete and controversial notion: [9]

> Convergence has been associated with Darwinian evolution in the popular imagination since at least the 1940s. … The degree to which convergence affects the products of evolution is the subject of a **popular controversy**. In his book *Wonderful Life*, **Stephen Jay Gould** argues that if the tape of life were re-wound and played back, life would have taken a very different course. **Simon Conway Morris** counters this …, arguing that **convergence is a dominant force in evolution**, and that, since **the same environmental and physical constraints act on all life, there is an "optimum" body plan that life will inevitably evolve toward**, with evolution **bound to stumble upon intelligence** — a trait of primates, crows, and dolphins — at some point. **Convergence is difficult to quantify**, so **progress** on this **issue** may require **exploitation of engineering specifications** (e.g., wing aerodynamics) and comparably rigorous measures of "very different course" in terms of phylogenetic (molecular) distances.

Although the escape clause "convergent evolution" may be thought by evolutionists to be a work in progress, it remains little more than a convenient phrase for evolutionists to toss around in their papers.


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## Hundreds, not Hundreds of Thousands

A "giant ore deposit" in Hungary, thought to require hundreds of thousands of years of slow, gradual deposition to form, has been re-examined. Conclusion: it formed in just hundreds of years due to the action of microbes. The abstract posted in the journal *Geology*[1] reveals that the giant ore deposit

> … was studied using **high-resolution mineralogical, microtextural, and chemical methods**. Two independent **superimposed biostructures** were identified consisting of rhythmic laminations that provide important proxies for paleoenvironments and duration of ore formation. **Millimeter-scale laminae** reflect a **depositional series** of Fe-rich biomats, **mineralized microbially produced sedimentary structures**. These biomats formed at the sediment-water interface … by enzymatic …. processes that may have developed on a **daily to weekly growth cycle**. … This microlamination may reflect a **10 h to daily rhythmicity produced by the growth of microbial communities. If true, then the … deposit may have formed over hundreds of years, rather than hundreds of thousands of years as previously thought.**


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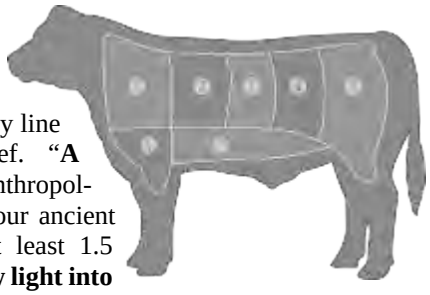
## Sorry, Vegans



Recently *ScienceDaily*[1] swallowed the evolutionary line without asking where's the beef. "**A skull fragment** unearthed by anthropologists in Tanzania shows that our ancient ancestors were eating meat at least 1.5 million years ago, **shedding new light into the evolution of human physiology and brain development**," reads the opening sentence.

If meat eating made us human, what does that make *T. rex*? Lots of animals ate meat. Carnivores go way back. Didn't the anthropologist consider that? According to Charles Musiba, Ph.D., associate professor of anthropology at the University of Colorado Denver, who helped make the discovery:

> '**Meat eating** has always been considered **one of the things that made us human**, with the protein contributing to the growth of our brains…Our work shows that 1.5 million years ago we were not opportunistic meat eaters, we were actively hunting and eating meat.'

But lots of carnivores hunt their meat. That's what makes a carnivore a carnivore and not just a scavenger. Is hunting meat what makes eagles human? Somehow Musiba built his conclusion on a malnourished juvenile "hominin," as inferred from the skull fragment. The reader looks in vain for deeper thinking about this than the headline suggested.

> The study offers **insights** into the evolution of hominins including Homo sapiens. Musiba said the movement from a scavenger, largely plant-eating lifestyle to a **meat-eating** one

may have provided the protein needed to grow our brains and **give us an evolutionary boost**.

> Some scientists have **argued** that we became human when we became carnivorous-omnivorous creatures. [Musiba said] '**Meat eating is associated with brain development**…The brain is a large organ and requires a lot of energy. We are beginning to think more about the relationship between brain expansion and a high protein diet.

Certainly a *T. rex* or a lion eats much more protein per ounce of brain than a human does. How can Musiba say such things? How can *Science Daily* publish it uncritically? Musiba says that chimpanzees have smaller brains and eat less meat, but nowhere did he apply his notion to the large carnivores that have inhabited earth.

He may be convinced of his hypothesis, having said that our meat eating "'separates us from our distant cousins.'" But he also can't explain why our ancestors went to the meat market: "'The question is **what triggered our meat eating?** Was it a changing environment? **Was it the expansion of the brain itself**? We **don't really know**.'"

This story is so full of baloney it's hard to know where to start slicing. First, he says meat eating made us human (ignoring all the other carnivores that ever stalked the earth). But then he offers the idea that the expansion of the brain came first. This guy needs an evolutionary boost, all right; a boost out of the garbage bin he's in.

So let's just take him at his word. "We don't really know" (the "we" referring to himself and his fellow baloney sellers). *ScienceDaily* knows even less, because the editors didn't call him on it. What do you do with people who don't know what they're talking about? Ignore them.

However, we can't ignore the sad fact that thousands of people are exposed to this kind of baloney and think it is wonderful science. Here's your assignment: Feed meat to a guinea pig, wait a million years, and see if it starts writing books on logic.

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◁ CM ▷

# Membership Matters

**by Glen Wolfrom, Ph.D.**

Recently we received an email from an evolutionist. Well, that in itself is not unusual. I do not have time to carry on lengthy dialogs regarding their disagreements with our worldview. Fortunately, most such emails are little more than insults which are not worthy of a response. I am glad, however, to correct misconceptions regarding who we are and what we do.

This latest communication I am confident was, in the eyes of the sender, a "gotcha" moment. In the frame below is the message which was received on November 13.

This assertion was totally in error. I suspect that Judy visited our website's listing of libraries which have subscriptions to the *CRS Quarterly*, but she did not take the time to look carefully. There are nearly two hundred libraries listed there, and it is true that a large majority are located at Christian colleges and universities. That is of course to be expected since origins and faith are linked, but it says nothing about the validity of the information which we publish.

Judy missed the fact that there are several secular libraries listed among the others. Since this was an easy matter to correct, I sent her this listing of US libraries that currently receive the *Quarterly* (see table below). I did not hear back from Judy.

◁ CM ▷

> Sirs:
>
> Why are all your journals only displayed in libraries of religious faith? None in state universities, etc? Makes one question the validity of your research.
>
> Please comment.
>
> Sincerely,
> Judy

| Library or Institution | City | State | Since |
|---|---|---|---|
| San Diego Public Library | San Diego | CA | 1998 |
| Iowa State University | Ames | IA | 1973 |
| University of Iowa Libraries | Iowa City | IA | 1984 |
| Boise State University | Boise | ID | 1997 |
| Mid-Continent University | Mayfield | KY | 1984 |
| Grand Valley State University | Allendale | MI | 1974 |
| University. of Michigan | Ann Arbor | MI | 1998 |
| Princeton University Library | Princeton | NJ | 1998 |
| Cornell University Library | Ithaca | NY | 1996 |
| New York Public Library | New York | NY | 1987 |
| Cincinnati Public Library | Cincinnati | OH | 1997 |
| Oklahoma State University | Stillwater | OK | 1995 |
| University of Oklahoma Libraries | Norman | OK | 1980 |
| Luzerne County Community College | Nanticoke | PA | 1984 |
| Texas A&M University | College Station | TX | 2007 |
| Walla Walla University Library | College Place | WA | 1999 |

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# All by Design

## Waiting to Prey

by Jonathan C. O'Quinn, D.P.M., M.S.

Living creatures have been endowed with the ability each one needs to survive — instincts, behaviors, physical traits, adaptability, etc. This is evident as we learn about the animals inhabiting the earth, from the great whales of the oceans to the tiny creatures which inhabit our gardens.

Present in a great variety, crab spiders are expertly designed hunters. Many species primarily stalk insect pollinators on flowers, where they can wait motionless for days or even weeks. They have eight eyes which provide them with excellent vision in all directions. The first pair of legs are much larger than the remaining six, being used to hold very strong prey insects such as bees and butterflies. Crab spiders have potent venom that immobilizes their prey instantly.

Some species, such as the goldenrod crab spider, can alter their background color to match the flowers in which they hide. In addition, and perhaps most interestingly, crab spiders demonstrate an extraordinary ability to seek out the flower buds on the flowering plants which they inhabit. There they may stay for days in ambush, waiting for the flowers to open, knowing that those particular locations will soon be feeding grounds for insects that the spiders eat.

*Crab spider* Misumenoides formosipes.
*Photo credit:*
*Jonathan Armstrong, University of Southern California.*
*Courtesy of Bugwood.org, image number 078035.*

For the ancestors of today's living creatures, these abilities had to function properly from their origin, arguing against the notion of a gradual development of these essential traits. Rather than arising by random mutation and mindless selection, instincts such as lying in wait on flower buds could only have come from one source. That source, friends, is the Lord God Almighty.

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3. Personal observation

◁ CM ▷