

Answers for Darwin Conference Here in September...

Answers in Genesis will be producing a Creation Conference to be held at Rolling Hills Community Church on Sunday and Monday, September 27 and 28, 2009. Featured speakers will be Dr. Jason Lisle and Ken Ham.

Note that Monday morning and the afternoon of September 28 will be free admission for Home School and Christian School Students. *More details will be available next month.* Volunteers will be needed and are requested to stay following the June DSA meeting for current assignments.

Please contact Craig Hubler at 503-968-5467 or cwhubler@msn.com for any promotional ideas or partnering churches.

Register Now for the DSA Overnight Raft Trip

August 10 & 11, 2009

This extended-version raft adventure covers 35 miles of the beautiful Deschutes river country, and features an overnight stay.

Why? Besides enjoying good Christian fellowship and the adventure of white water rafting, DSA members Steve Hayley and Keith Swenson will present a creationist perspective on the biology, geology (and night-sky stars) of the Deschutes Canyon.

Who? All interested persons are welcome to register. Anyone younger than age 18 must be accompanied by a responsible adult.

Meet: We will meet in the parking lot of Central Bible Church [time to be announced] and drive to Maupin, OR, where the raft trip begins. Return time (to Maupin) will be around 5PM Wednesday.



Bring: Provided by Discovery Outfitters will be all rafting equipment, meals (lunch, dinner, breakfast & lunch) and shuttle to and from raft sites. A list of personal items recommended will be sent to each person registering.

Cost: \$155. per person. (Due with this application).

Registration: Return a completed form with your payment (get form at meeting, or at website). Acceptance will be on a first come, first serve basis.

For more info, contact coordinator Ruth Hazen at: 503-658-7734 or: kkadhazen@juno.com

Download registration form at:
www.pdxdsa.org

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DESIGN SCIENCE ASSOCIATION newsletter

—Suggested donation of \$5 per year covers cost of postage & photocopying—
DSA is recognized as a 501(c)(3) Tax Exempt Organization

Morning meeting
9am on the
third Saturday,
June 20, 2009

“And God saw everything that he had made, and behold, it was very good.” Genesis 1:31

Dr. Mark Deming

Order in the Court—Will the Real *Entropy* Please Rise!



As we look at our world around us we see things moving, growing, sticking, shocking and even getting blown up. Energy is flowing all around us, sometimes changing forms. We take chemical energy stored in bonds in the gasoline, then burn it rapidly in our car engines to change it to heat energy which expands the gas, and we capture much of that energy and turn it into mechanical energy that moves our car. Other forms that we encounter are light, magnetic, electric, and motion (kinetic) energy. The natural dynamic world and universe around us is about moving, absorbing and releasing energy. Most objects will try to be at a minimum of energy if they can. Energy is constantly changing the form it is in, but apparently it is not created or destroyed.

The most difficult form of energy to conceptualize is that related to *Entropy*. Entropy has in many modern science classes been called the “energy of disorder”. The second law of thermodynamics can be interpreted to state, “The entropy of the universe (or any closed system) will increase

over time.” Because the unfortunate name “disorder” has been used for entropy, some minor voices in the Christian community assumed that God would not create disorder—so it must have come at the time of the fall. Others have used the Second Law of Thermodynamics (a consequence of entropy) to imply that evolution should, by random chance and entropy, lead to *disorder*. Some evolutionists have countered that the earth is an “open” system, not closed and therefore the second law does not strictly apply. Popular DSA speaker Mark Deming* promises to make this topic of *entropy*, which has potential for being dry and boring, into a fun and informative discussion! The talk will try to make clear what entropy really is and how it relates to other forms of energy. He will make applications to the real world, biomolecules and to genetics—and conclude by trying to answer some of the questions related to the creation—evolution debate.

THIS MONTH’S DSA MEETING will be held on Saturday, June 20, 2009, from 9 to 11:30 AM.

Be sure to join us as we make order out of entropy!

*Dr. Mark Deming is currently teaching chemistry at Portland Community College, Portland, Or. He has a Ph.D. Chemistry, USC (1992) and a B.S. Chemistry, CSULA (1986)

An Association for Good Science

Meets monthly at Rolling Hills Community Church, 3550 SW Borland Rd, Tualatin, OR 97062
Discount creation book & video sales table at every meeting.
For more information, call (503) 665-9563 Website: www.pdxdsa.org

Mailing address:
PMB 218, 465 NE 181st Av.
Portland, OR 97230
E-mail: krhogan@verizon.net
Address Changes: mail to PMB
address or E-mail to: kghoward@cascadeaccess.com

Dinosaur soft tissue and protein—even more confirmation!

by Carl Wieland

Background

Creationists were fascinated, and evolutionists mostly skeptical, when evolutionist Dr Mary Schweitzer claimed in the 1990s that an unfossilized piece of T. rex bone contained red blood cells. Further, that there was immunological and spectroscopic evidence of the presence of hemoglobin, the oxygen-carrying protein that gives red blood cells their colour.¹

Then in 2005, Schweitzer announced a further sensational discovery in a different T.rex bone. After the mineral matrix was dissolved,² what remained were structures with all the appearance of soft tissue, still soft and stretchy. Some of these appeared to be transparent branching blood vessels, with a substance inside them containing further structures looking just like nucleated red blood cells, and able to be squeezed out of the vessels like toothpaste.

How could such fragile structures survive for millions of years? Long-agers went into intense, but not very effective damage control, such as seen in the item (containing CMI's response) Squirming at the Squishosaur: [http://creation.com/squirming-at-the-squishosaur]

Gradually, further evidence strengthened the case that Schweitzer had indeed discovered evidence of astonishing preservation of organic material in fossils. In 2007, in Squashing Squishosaur Scepticism, we reported that she and her team had performed careful tests to establish the presence of the protein collagen in the dino fossil—an important protein in bone. They were even able to sequence stretches of it, which showed that it was 58% similar to collagen from a chicken, and 51% similar to that from a frog.³

It has been pointed out many times that fragile, complex molecules like proteins, even if hermetically sealed, should fall apart all by themselves from thermodynamic considerations alone in well under the 65 million years that evolutionists insist have passed since Schweitzer's T. rex specimen was entombed.^{4,5} Furthermore, bones of an Iguanodon allegedly twice as old ("dated" to 120 Ma) contained enough of the protein osteocalcin to produce an immune reaction.⁶

Many anti-creationists therefore breathed a sigh of relief when in mid-2008 a paper claimed to have found evidence that the transparent blood vessels, for instance, were the result of recent bacterial formation of biofilms, forming "endocasts" that followed the shape of where the original vessels lay, and that the red blood cells are actually iron-rich spheres called framboids. There were substantial reasons why not just creationists, but Schweitzer and other non-creationists were not at all convinced by these claims. See: [http://creation.com/doubting-doubts-about-the-squishosaur]

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The new findings

Now comes a further announcement by Schweitzer and others, in the prestigious journal *Science*, of substantial additional evidence to bolster her previous findings.⁷ The specimen on this occasion was a piece of fossil hadrosaur (duckbilled dinosaur) bone (*Brachylophosaurus canadensis*) regarded by evolutionary assumptions as being 80 million years old.

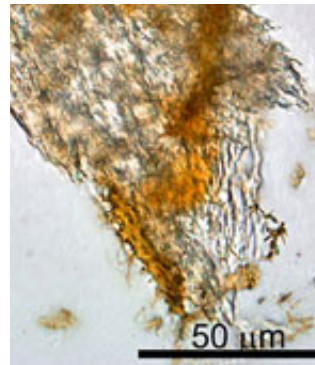


Image: Dr Mary Schweitzer
Cells and connective tissue can be clearly seen.

In short, the researchers found evidence of "the same fibrous matrix, transparent, flexible vessels, and preserved microstructures she had seen in the T. rex sample".⁸ Only this time they went to exceptional lengths to silence critics. Critics said that her claims, which given the millions of years perspective are indeed "extraordinary", required extraordinary evidence. But this is a cliché; in reality, they just require evidence, and that has been amply provided. Yet the critics

demanded additional protein sequencing, super-careful handling to avoid claims of contamination, and confirmation from other laboratories. So Schweitzer and her team set about doing just that when they looked at the leg bone of this hadrosaur encased in sandstone.

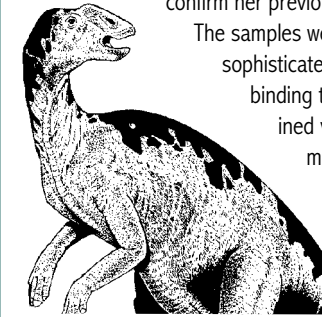
Extraordinary measures were taken to keep the sample away from contamination until it reached the lab. They used an even more sophisticated and newer mass spectrometer, and sent the samples to two other labs for confirmation. They reported finding not just collagen, but evidence of two additional proteins—elastin and laminin. They also found structures uncannily resembling the cells found in both blood and bone, as well as cellular basement membrane matrix. And there were, once again, hints of hemoglobin, gleaned from applying hemoglobin-specific antibodies to the structures and seeing if the antibodies would bind to them.

Some scientists are still skeptical about the hemoglobin, which is "difficult to identify with current technology". Dr Pavel Pevzner of the University of California, was quoted as saying that if it is not a contaminant, it would be "much bigger news [than the confirmed discoveries of blood vessels and other connective tissues in] this paper."⁹

Even leaving aside the hemoglobin, the Schweitzer et al paper is huge news. Pevzner had been critical of the technique used in Schweitzer's analysis of the T. rex protein, but now he says that her new

study "was 'done the right way,' with more stringent controls to guard against contamination", for one thing.

There were eight collagen proteins alone discovered from the hadrosaur fossil, which revealed twice as many amino acids as the previous tyrannosaur specimen. These were compared with sequences from animals living today as well as from mastodon fossils and her T. rex sequences. The hadrosaur and tyrannosaur collagens were closer to each other than the others, and each were closer to chickens and ostriches than to crocodylians, for instance—results which would also confirm her previous identification of T. rex collagen.



An illustration of a 'duck-billed' dinosaur.

The samples were identified as collagen by both sophisticated mass spectroscopy and antibody-binding techniques. They were also examined via both light and electron microscopy, which confirmed that they had the appearance of collagen as well.

As Schweitzer says, "These data not only build upon what we got from the T. rex, they take the research even further."

Power of the paradigm

Philosophers of science have written much about the power of a paradigm, especially when it has worldview implications, such as long-age belief. Such a paradigm is seldom, if ever, overthrown simply because of observations that contradict its expectations. Even Schweitzer herself, despite professing to be an evangelical Christian, is extremely defensive about the old-age paradigm—see Schweitzer's Dangerous Discovery.

What happens is that "auxiliary" hypotheses and assumptions are constructed to preserve the intactness of the "core" hypothesis, in this case what is known as "deep time". In simple terms, proteins should simply not have been able to last for these tens of millions of years. So when they are found in specimens dated this old, the paradigm is under serious threat.

The most straightforward fit to the evidence is that the time of burial of these dinosaurs was not millions of years ago at all, but only thousands of years ago at most. As the evidence continues to mount that dinosaur fossils do indeed contain well-preserved soft tissue structures and identifiable proteins, the assumption that will increasingly be made is that "we now know that such tissue components can last that long, after all." *Not many will see this as the paradigm-rescuing assumption that it is.*

Consider the line of reasoning:

- 1) We know that this dinosaur fossil is 80 million years old.
- 2) Calculations based on operational (observational) science indicate that no collagen should survive anywhere near that long.
- 3) Collagen has been identified in these dinosaur fossils. Therefore:
- 4) There must be a mistaken assumption in the calculations mentioned in Point 2)—though we don't know for sure how, collagen must be able to survive for 80 million years. How do we know that? Because
- 5) We know that this dinosaur fossil is 80 million years old.

Notice how points 1) and 5) are identical, revealing the circularity.

The following chain of reasoning is far more science-based:

- 1) This dinosaur fossil is claimed to be 80 million years old
- 2) Calculations based on operational (observational) science indicate that no collagen should survive anywhere near that long.
- 3) Collagen has been identified in these dinosaur fossils. Therefore:
- 4) The claim in point 1) is wrong. The fossil cannot be anywhere near that old. This matches the expectations of a worldview based on the history given to us in the book of Genesis.

We hope that many readers will be able to use this sort of evidence to gently pry open many closed minds.

References

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2. With the strong chelating agent EDTA that extracted metal ions from the mineral while leaving proteins intact.
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6. Embery G. et al., Identification of proteinaceous material in the bone of the dinosaur Iguanodon, *Connect Tissue Res.* 44 Suppl 1:41–6, 2003; . The abstract says: 'an early eluting fraction was immunoreactive with an antibody against osteocalcin.'
7. Schweitzer, M.H. et al., "Biomolecular characterization and protein sequences of the Campanian hadrosaur *B. canadensis*", *Science* 324(5927):626–631, 1 May 2009 | DOI: 10.1126/science.1165069, <www.sciencemag.org/cgi/content/full/324/5927/626?ijkey=47dc1272e069cf51caab0651d4462cbe5045f92c>
8. "Proteins, Soft Tissue from 80 Million-Year-Old Hadrosaur Show that Molecules Preserve Over Time", www.physorg.com/news160320581.html, accessed 3 May 2009.
9. Oldest Dinosaur Protein Found—Blood Vessels, More, nationalgeographic.com, May 1, 2009. The insert in square brackets was in the original from this source.