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This Week

Research Notes

Articles

Cover: Computer-generated picture of amylin, a recently discovered protein that may offer new insight into Type II diabetes. Some scientists believe amylin interferes with insulin's sugar-uptake message. Skeptics warn, however, that the link between amylin and diabetes remains highly speculative. (Photo: Amylin Corp.)

Departments

Letters

Presto predators?

"When Life Got Hard" (SN: 8/25/90, p.120) strikes me as a good example of a proposed theory that becomes mostly smoke and mirrors on close inspection.

The premise is that "animal skeletons emerged abruptly," and the theory is an attempt to answer the question, "Why the big hurry?"

"Predators!" proclaims the theory. In other words, animals abruptly began to generate hard shells, tubes, cones and needles to protect themselves against their hungry neighbors.

But what about the predators? Either they were there all along, in which case the sudden development of skeletal designs in response to their presence doesn't make evolutionary sense, or else they appeared just as suddenly as did hard-bodied animals — a possibility the theory does not account for.

Logic, on the other hand, might lead one to suppose that the abrupt appearance of hard bodies could have been in response to changing environmental conditions.

Dudley Bromley
Colorado Springs, Colo.

I am still not convinced that there is any evidence for a Cambrian "arms race." Shelled marine animals more likely preceded offensively armed predators. There is no evidence that predation was the main factor responsible for the appearance of calcareous shells.

Shelled animals had to exist *before* predators developed their "can opener" equipment. If exoskeletons proved to be protective, they simply made their wearers more apt to survive; but there is no reason to posit that a need for such protection was a primary factor in the exoskeleton's appearance.

Stephen E. Silver
New London, Conn.

Elusive neutrinos

"Serious shortfall of solar neutrinos" (SN: 9/1/90, p.141) illustrates a point beautifully made by W.R. Thompson in his introduction to the sixth edition of Darwin's *Origin of Species.* Dr. Thompson, a highly respected scientist and director of the Commonwealth Institute of Biological Control in Ottawa, Ontario, worried about "those fragile towers of hypotheses based on hypotheses, where fact and fiction intermingle in inextricable confusion . . . where deficiencies of the data were patched up with hypotheses, and the reader is left with the feeling that if the data do not support the theory they really ought to."

Perhaps our astronomers and astrophysicists, while continuing their admirable search for those elusive solar neutrinos, ought to consider the very real possibility that their findings are correct, and give some serious attention to alternative theories about the source of solar energy.

Ralph Pacini
Grand Junction, Colo.

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