mechanisms …"[11] need be made. The average layman is fully capable of arriving at this conclusion. Even though Stephen Meyer committed several rookie errors, his main thesis is correct. The generation of the information contained within the first cell requires intelligent oversight, superintendence, and/or design.

Finally, a planned evolution is fully compatible with common ancestry, descent with modification, orthogenic proteins, stratification, and the fossil evidence supporting evolution, for what could an unplanned evolution do that a planned evolution could not do?

Notes

[1]Dennis R. Venema, "Seeking A Signature," *Perspectives on Science and Christian Faith* 62, no. 4 (2010): 280.

[2]Of the 27 specific amino acids in cytochrome c, Arg. occurs twice (2) and has six [6] codons; Asn (2), [2]; Cys (1), [2]; Gly (7), [4]; His (1), [2]; Leu (2), [6]; Lys (3), [2]; Met (1), [1]; Phe (2), [2]; Pro (3), [4]; Thr (1), [4]; Trp (1), [4]; Tyr (1), [2]. Calculate the probability of the natural assembly of these 27 specific amino acids: A probability of $(1/64)^2 \times (2/64)^{10} \times (4/64)^{11} \times (6/64)^4$ per try = $1/10^{35}$ per try or 1 chance in 10^{35} per try.

[3]27 a.a.x3 = 81 amino acids and 27 a.a.x4 = 108 amino acids; $(10^{35})^3 = 10^{105}$ and $(10^{35})^4 = 10^{140}$

[4]$10^{105}/10^{61} = 10^{44}$ and $10^{140}/10^{61} = 10^{79}$

[5]Fredric Nelson, MD, "Tossing Darwin out of Science," as found at evolutionneedsanadjective.com.

[6]F. S. Collins and K. G. Jegalian, "Deciphering the Code of Life," as found in *Understanding the Genome* (New York: Warner Books, 2002), 29.

[7]>81 specific amino acids located at specific sites/average-sized protein x 10 average-sized proteins = >810 specific amino acids located at specific sites.

[8]$810/27 = 30$; $(10^{35})^{30} = 10^{1,050}$

[9]$<10^{61}$ proteins/planet x <10 planets/star x $<10^{24}$ stars/universe x 10^{500} universes = $<10^{586}$ proteins exploring sequence space.

[10]Sean B. Carroll, *The Making of the Fittest* (New York: W. W. Norton & Co., 2006), 159.

[11]Venema, "Seeking A Signature," 281.

Fredric P. Nelson, MD
ASA Member
753 Lawson
Havertown, PA 19083

A Reaction to "Seeking a Signature," an Essay Review by Dennis Venema

I was deeply disappointed in the review by Dennis R. Venema of Stephen C. Meyer's recent book, *Signature in the Cell: DNA and the Evidence for Intelligent Design* (*PSCF* vol. 62, no. 4 [2010]: 276–83). Venema does not need to be impressed by the lively endorsements the book has received, or the prominence the author of the book has attained, but he could have done what book reviewers ordinarily do—give a fair and balanced approach to the book before him.

His patronizing tone is annoying. Collegiality deserves better, especially when the colleagues are working for a common cause. Does it not seem strange that what praise he has for the book he will leave unsaid, "not out of disrespect, but rather out of respect"?

Venema comes to the book with a mindset which assumes that in due time scientists will solve the origin-of-life problem—and will do so at a naturalistic level. With such a mindset, no study which advances intention, purpose, design, a miraculous bestowal on biological processes, will persuade him of alternatives. He says that "it is a reasonable expectation that further research will continue to pay dividends." With such a mindset one can predict the results. Venema ignores the forensic contribution to the discussion which Meyer's book makes. And then he finds what he regards as flaws in Meyer's argument that would militate against the notion that information can arise in the cell through natural causes. He skirts Meyer's observation that scientists have called off the debate about "What is science?" since there are at least thirty ways of doing science. Venema has bought into the model of philosophic naturalism—whatever his personal beliefs may be. Meyer has earned the right to say that "Intelligent design is an inference from scientific evidence, not a deduction from religious authority." And he has the backing of Philip Skell, who says about Meyer's book that "it demonstrates what I as a chemist have long suspected: undirected chemical processes cannot produce the exquisite complexity of the living cell."

Marilyn Robinson and others have recently observed that science for the last 150 years, for all the undeniable practical benefits and insights into nature which science has given us, has also left us with philosophies that lead to despair and nihilism. George Gaylord Simpson is one spokesman for this more recent approach: "Man is the result of a purposeless and materialistic process that did not have him in mind. He was not planned." Is Venema really comfortable with the implications of his naturalistic approach?

And have we really gone beyond Sir Isaac Newton, who asks,

> How came the Bodies of Animals to be contrived with so much Art, and for what ends were their several parts? Was the Eye contrived without Skill in Opticks, and the Ear without Knowledge of Sounds? … And these things being rightly dispatch'd, does it not appear from phenomena that there is a Being incorporeal, living, intelligent …? (Meyer, p. 11)

One might add, does common sense not explain the existence of pyramids, the space shuttle, the Aswan Dam—rational minds intending to bring about a desired result? Or how explain the bacterial flagellar motor that inhabits the cell, with what resembles a thirty-part rotary engine, or the 500 bits of information present in a cell and necessary to synthesize protein? Or the tiny apparent "turbine" with nine tilted blades that inhabit a centriole? (Meyer's examples.)

Given his commitment and his position, shouldn't Venema be placing his shoulder behind a different wheel?

Steve J. Van Der Weele
Emeritus Professor of English
Calvin College
Grand Rapids, MI 49546