



## *Darwin Devolves: The New Science About DNA That Challenges Evolution*

by Michael Behe

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In this book, biochemist Michael Behe considers research at the molecular level. The conclusion is that Darwinian evolutionary mechanisms are self-limiting and “incapable of building functionally complex molecular structures” (p. 251).

Chapter 2, “Fathomless Elegance,” illustrates the elegance, sophisticated structures, and brilliant organizational arrangements of life. Examples include the interacting gears of a plant hopper, fiber-optic cables that channel light to the rods and cones in the human eye, bacteria that use encapsulated iron-rich particles to align with earth’s magnetic field, and deep regulation within cells that has stumped investigators.

Chapter 3, “Synthesizing Evolution,” shows that comparative anatomy is insufficient for identifying related species. DNA sequencing is objective. Random mutations are inadequate for explaining variations since undirected adaptation is “restricted to modifying a few pre-existing features of an organism in uncoordinated ways” (p. 90).

Chapters 4-5, “Magic Numbers” and “Overextended,” consider extensions proposed to rescue neo-Darwinism (e.g., neutral theory, web of life, infinite mul-

tiverses, self-organization, eco-devo, and inclusive inheritance) and documents their weaknesses. Most contemporary Darwinists do not consider the source of helpful variation but assume that mutations are available when needed to build complex systems.

Chapter 6, “The Family Line,” discusses Peter and Rosemary Grant’s studies of Darwin’s finches. “Darwinian processes labored long and mightily in the Galapagos and brought forth ... a finch” (p. 147). The remnant population has nothing that the starting population didn’t have. Instead, it has *less* genetic variation. “Darwin’s mechanism has been wildly overrated—it is incapable of producing much biological change” (p. 155). Mutations and natural selection, working with already existing genetic material, support differentiation into species adapted to niches but cannot produce a different kind of entity where new genetic information is required. Additional examples (African Cichlids, *Drosophila*, Mecyclothorax beetles, Hawaiian lobelias, and Hawaiian honeycreepers) demonstrate that speciation results from changes to *existing* DNA sequences. “Minor random variations around a designed blueprint are possible and can be helpful, but are severely limited in scope. For new basic designs such as those at the biological level of family and above, additional information is necessary, information that is beyond

the ability of mindless processes to provide” (p. 169).

Chapter 7, “Poison-Pill Mutations,” discusses Richard Lenski’s longitudinal *E. coli* study. “After fifty thousand generations of the most detailed, definitive evolution experiment ever conducted ... it’s very likely that all of the identified beneficial mutations worked by degrading or outright breaking the respective ancestor genes. And the havoc wreaked by random mutation had been frozen in place by natural selection” (p. 179). “The almost oxymoronic ‘damaging but beneficial’ mutations are the poison pills of Darwinian evolution” (p. 187). An immunity to adult diabetes is caused by a mutation that “*destroys* a gene used by pancreas cells where insulin is made” (p. 192). Genetic changes in dogs are all largely degradative. “New life hasn’t evolved. Overwhelmingly it has *devolved* ... life lives on its generic patrimony.... it will never have greater generic wealth than what it inherited” (p. 197).

Chapter 8, “Dollo’s Timeless Law,” demonstrates that “relentless selection will tend to fit already functioning molecular machinery more and more tightly to its present task, with no regard for future use” (p. 203). Behe appeals for intelligent design. He refers to the claim of some Darwinists that gene reduplication can add new genetic information. Behe notes that the scientific literature remains devoid of testable explanations



for how molecular machinery arose. Behe also counters Richard Dawkins's use of irrelevant and mistaken math (Dawkins's own response to Behe's efforts to define limits to Darwinian mechanisms).

Chapter 9, "Revenge of the Principle of Comparative Difficulty," shows that new features could not possibly develop by small incremental steps. "A kind of system that strongly challenges Darwin's mechanism is one that is *irreducibly complex* (IC)" (p. 230). The IC concept is applied to molecular machines for which there is no plausible evidence to show how they could have been constructed by random processes. For example, no random process could account for the conceptually simple IC structure of two cystine groups forming a disulfide bond. Boosters of Darwinism support a "theory that labors mightily to explain a crummy two-amino-acid-residue disulfide bond" (p. 244) and therefore cannot account for more complex structures. The

Darwinian mechanism is self-limiting, capable only of eliminating or modifying preexisting molecular systems but incapable of building functionally complex structures.

Chapter 10, "A Terrible Thing to Waste," considers how life's variety could have arisen and also theories of mind (e.g., materialism, idealism, and solipsism). We know the presence of a mind from artifacts it produces. Materialism undermines common sense. On the question of *whose* mind developed sophisticated molecular machinery, Behe states that he is a theist but leaves intellectual room "for people of widely varying philosophical inclinations" (p. 278).

"Clarifying Perspective" in the Appendix addresses responses to *Darwin's Black Box*, showing that there are no Darwinian explanations for how complex molecular machines developed. Michael Behe demonstrates the impossibility of life developing by random

mutations and natural selection. However, Behe does not hold to young-earth creation. He accepts long ages for the existence of the earth and evolutionary processes. For example, he states, "Billions of years ago photosynthetic bacteria appeared that produced oxygen" (p. 122). Behe also implies acceptance of intelligently directed evolution—i.e., theistic evolution, although he does not use the term. Furthermore, Behe states that all life has a common descent, inconsistent with God's statement that all life was created by its kinds. Behe implies a denial of the Genesis Flood as the source of fossils. For example, a polar bear fossil "is over one hundred thousand years old" (p. 15). Behe's arguments would be more powerful if he hadn't given credence to these commonly accepted myths.

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