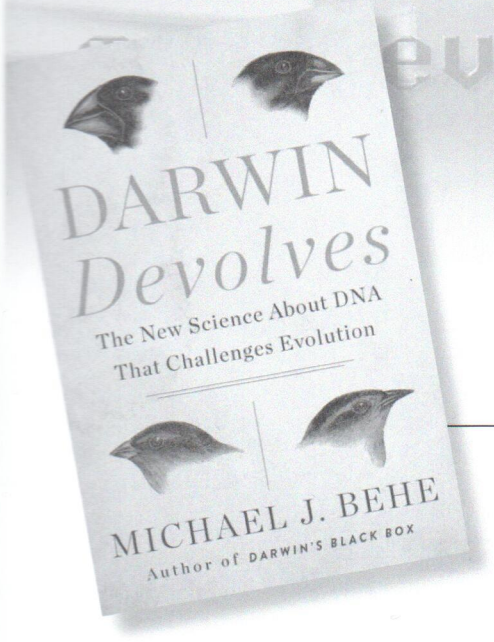

Darwin Devolves: The New Science About DNA That Challenges Evolution

by Michael Behe

HarperOne, San Francisco, 2019, 352 pages, $19.00

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 multiverses, 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 *de*volved ... 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