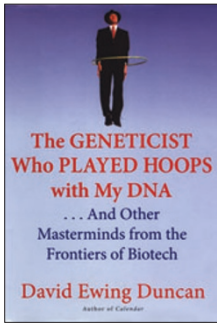


Trust but verify



The Geneticist Who Played Hoops With My DNA

By David Ewing Duncan

William Morrow, 2005
273 pp. hardcover, \$25.95
ISBN 0060537388

Reviewed by Alan Packer

What is one to make of a book constructed around interviews with eight prominent scientists, in which each is given an alias taken from the Bible, Shakespeare's works or mythology? More than a few readers will find this sort of thing rather frivolous, and there is the danger that complicated individuals will be caricatured. If you forgive the ridiculous title, however, David Ewing Duncan's book, *The Geneticist Who Played Hoops With My DNA*, is worth reading. This is in part because the author is not entirely serious about the nicknames, but mostly because he's adept at mapping out the areas where personality and science intersect. No doubt there is a danger to this as well, as some would argue that the focus should be on the work itself, rather than on the practitioners. Fear not. Duncan doesn't bother pretending. He baldly states that the personalities of the scientists are precisely what he wants to know about: "The science emanates from their minds, and from their personal stories, but also from who they are: their hopes and fears; their humility, their arrogance, and the ambition that drive them forward into discoveries and dictates how they react to the possibility of miracles, and of disasters." The author mentions in passing that, of course, the circumstances of the age are also important to understand, but obviously he wants to take the measure of these individuals to find out if we can trust the people who are tinkering with the stuff of life. In the end, whether you buy this approach or not, the raw data are interesting.

The chosen few are Doug Melton (Prometheus), Cynthia Kenyon (Eve), Francis Collins (Paul), Jim Watson (Zeus), Sydney Brenner (Puck), Paul Berg (Moses) and Craig Venter (inevitably, Faustus). The eighth is Kari Stefansson (Erik the Red), whose interview provides the book's opening sentence, as well as its title: "I'm playing hoops with Erik the Red on a half-court at the ends of the Earth, and he is toying with me." Duncan meets with Stefansson as part of an act of Plimptonesque participatory journalism, in which he provides a blood sample that will be tested for the presence of a haplotype predisposing to stroke. Stefansson is in fine form, providing evidence of what Duncan calls his "prickly, infectious personality." He tells the author that his DNA is "of course, a scary substance" as he informs him that he does indeed carry

the risk haplotype and provides some rudimentary genetic counseling—don't smoke, drink only in moderation, monitor your blood pressure frequently. One wishes the author had explored this information a bit further and offered the reader some idea as to how it might affect his life. All we get, however, is a vignette in which the author, after dining with Stefansson and "drinking enough red wine to give me a stroke for sure," takes a walk along Reykjavik's Laugavegur Street in search of... a bar. So much for the power of genetics.

Having set aside the book's gimmick, Duncan moves on to quite interesting discussions about the other scientists. Perhaps the one most worth reading is the chapter on Doug Melton. Although Melton's personal interest in studying stem cell biology in the service of treatments for type 1 diabetes is well known, Duncan teases out some philosophical musings that underpin his views on the moral and ethical nature of stem cell research. Melton is most interested in what people consider 'normal' and the way in which this can change once the underlying technology becomes familiar. He describes several provocative thought experiments, and Duncan pushes him to draw a line beyond which he wouldn't go. Melton resists, concluding only, "...I think it's uninteresting to live in a society where one is so afraid of the unknown that you won't try new things." The bottom line for each of these scientists, Duncan declares, is ambition, which takes different forms in each, depending on the other features of their personality: Kenyon's enthusiasm, Collins's earnestness, Venter's mischievousness, Watson's directness, Berg's fairmindedness. These qualities are found in abundance in Duncan's deft profiles.

It's the chapter on Brenner, however, that reveals the book's failures. Determined to ask a question that he knows will annoy Brenner, he wonders aloud if "he ever worries that some madman, or perhaps a gung-ho secretary of defense or general, might use the new genetics to create a super-race or a super-soldier bioengineered for strength, height, intelligence, and stamina?" Brenner rewards him with the expected look of "mild irritation" but goes on to explain how difficult it is to understand the genetic origins of complex traits, "so the idea of a singularity existing to engineer a super-soldier is quite far-fetched."

Just so. And one suspects that Duncan knows this, as elsewhere in the book he discusses the relevant science in an intelligent manner. But too often the most extreme possible view is presented, if only to provoke. Duncan wants to know if we can trust these scientists. He argues that we can, partly because his encounters with them show their essential decency, and more importantly because an elaborate array of institutional checks and balances is now in place to make deliberate or unintentional malfeasance more difficult to get away with. The Russian proverb *doveryai no proveryai* (trust but verify) is apt. But in a book intended for a general audience, one might hope to better equip the reader to make that decision. A fuller grounding in the concepts and details that are at issue would be a start. Duncan makes some effort here, but not nearly enough, one senses, to allow a lay reader to determine the plausibility of the super-soldier scenario. And despite Brenner's best efforts, one could also come away from this book with little idea as to how difficult some of the science under discussion actually is. If the issue of failure never arises, even extremely improbable achievements may seem like they're just around the corner.

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