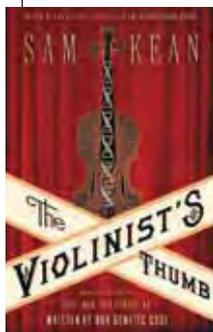


Interest in Genes Never Fades

Albert Einstein had decided against donating his organs to science. When Einstein died in 1955, however, the man tasked with performing the autopsy absconded with the Nobel laureate's brain, unable to pass up a chance at isolating some clue to the man's genius. That same decade, a physician traced the lineage of a boy with Marfan syndrome back to Abe Lincoln's great-great-grandfather, laying the foundation for scientists 36 years later to propose testing the former president's DNA. These and other genetic decoders were mostly disappointed, and the genetics questions they sought to answer persist: Are our personalities determined at the cellular level? Can a person's biology reveal what made them who they are? Is artistic or scientific genius written into our genetic code?

A preoccupation with his own genes is partly what led author Sam Kean (B.A. '02) to write about the intricacies of DNA. *The Violinist's Thumb*—a title referring to 19th-century virtuoso Niccolò Paganini, whose freakishly flexible joints were likely the result of a genetic disorder—is the second in Kean's series of engaging books on science topics; the first, 2010's *The Disappearing Spoon*, tackled the periodic table and was a *New York Times* best seller. He approaches his latest subject with a mix of humor, authority, and passion that should appeal to genetics enthusiasts as well as those who only vaguely remember Punnett squares from middle school biology.



The Violinist's Thumb: And Other Lost Tales of Love, War, and Genius, as Written by Our Genetic Code

By Sam Kean (B.A. '02)
Little, Brown and Company, 2012

Kean moves conversationally between a number of narrative strands, one being the history of the people who helped illuminate DNA—from Mendel and his peas to the researchers behind the Human Genome Project. The stories of scientific discoveries brim with intrigue, rancorous competition, and political maneuvering. Throughout the history of modern genetics, prevailing views led scientists and institutions alike to suppress correct theories for decades at a time, including Darwin's natural selection, which fell out of favor during the late 19th and early 20th centuries. Fierce (and occasionally underhanded) competition alternately helped and hindered scientists' attempts to solve the mysteries of genetics. Frustratingly, such schemes continue to this day. The race between the National Institutes of Health and the Celera Corporation may have led to

the human genome being mapped faster than it would have otherwise, but it was marred by the antics of one so-called “Caligula of biology” and by the slapdash methods of Celera's cofounder, which many scientists claimed were unsound and tantamount to cheating.

Another strand consists of anecdotes illuminating the strange and occasionally sinister side of genetics. As he did for the elements in *The Disappearing Spoon*, Kean presents an engrossing collection of curious and bizarre tales relating to DNA, many of which probably wouldn't make it into the average science textbook. These run the gamut from humorous (the supposed diagnosis of Darth Vader's borderline personality disorder) to horrifying (the DNA-related effects of excess vitamin A) to awe-inspiring (the genius of “megasavant” Kim Peek, who inspired the movie *Rain Man*). The anecdotes make for brilliant conversation starters, but more important, they put names and faces to the genetic concepts Kean discusses.



Sam Kean

The last main thread is made up of lessons on how DNA works, sprinkled in judiciously between the more entertaining passages. For the general reader, some of the finer points of DNA functions may be difficult to grasp, but Kean is an effective teacher (he taught for several years at an experimental charter school in St. Paul), and he provides a concrete foundation for the more abstract information the book covers. He also occasionally makes science a little more accessible in a way that speaks to his dual degree in physics and English: “[I]n some ways genes are better viewed as conceptual, not material,” he writes in the opening chapter. “A gene is really information—more like a story, with DNA as the language the story is written in.” Above all, as the author acknowledges, despite all we now know about what DNA is and how it works, there is still something ineffable about the way genetic code translates into a unique human being. It may be this nuance—the elusive connection between genes and genius—that makes the book so fascinating.

Readers accustomed to rigidly structured nonfiction might find the meandering style of *The Violinist's Thumb* challenging at times, but this very style was a key factor in Kean's success with his first book. He is a storyteller who reveals facts bit by bit in a way that draws the reader along, eager to see how the pieces fit together. He is a personable, capable guide in the complex world of genetics.

The son of parents named (believe it or not) Gene and Jean, Kean lives in Washington, D.C. His third science-related book is due out in the summer of 2014.

—Madeleine Vasaly



Owen Wangenstein

From Pigs to Whales

Arnold Leonard (B.S. '52, M.D. '55, Ph.D. '63), former head of pediatric surgery at the University of Minnesota, was fortunate to have worked beside some of the world's most renowned medical pioneers. This summer, he published a slim volume packed with these giants' stories, chronicling their influence on surgery in the United States.

Through the Portals of Pigs and Manure—whose title refers to the fact that Owen Wangenstein (B.S. '19, M.D.

'21, Ph.D. '25) nearly became a veterinarian instead of a physician—covers modern heart surgery, organ transplantation, the origin of the pacemaker, and more. Leonard even recounts a charming “whale” of a tale, when he became part of a medical team that reconstructed the deteriorating jaw of Big Mouth, a beloved beluga whale at the Minnesota Zoo, saving his life.

Leonard hopes his book appeals to anyone who values the impact inspiring teachers might have on subsequent generations.

The book's proceeds will benefit the Arnold S. Leonard Cancer Research Fund. A book signing is planned for September 22 at University of Minnesota Amplatz Children's Hospital. For more information, call 612-626-1931.

—Shelly Fling

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