cancer. Thankfully, Doudna counterweights sensationalism with a sober accounting of the risks and responsibilities of applications such as altering the genomes of entire populations of organisms with ‘gene drives’. In 2015, she sustained doubts about CRISPR ever being safe enough for clinical trials, but she has come to embrace editing of the human germ line — inheritable DNA modification — once it is proved safe.

But the discussion is ultimately unsatisfying. When it is time to “grapple with tricky ethical issues”, such as human experimentation, she balks, unspooling instead a series of rhetorical questions. Rather than guiding us through the ethical thickets of precision genetic engineering, or providing a candid, warts-and-all look at one of the great scientists of our time, the book mainly polishes her ‘good scientist’ image and rationalizes the unfettered self-direction of human evolution, within liberal bounds of safety, efficacy and individual choice.

Rather than dispel the cartoon-character feel of this epic battle, Doudna elaborates on it. She presents us with a persona so flawless that it seems more concealing than revealing. She waves away the bloody patent fight as a “disheartening twist” in the story, but the entire biomedical world knows that it was much more. As I read *A Crack in Creation*, I was reminded of Benjamin Franklin’s “benevolent man”, who, he wrote, “should allow a few faults in himself, to keep his friends in countenance” — and, I would add, to give him- or herself more depth.

The narrative often substitutes melodrama for dramatic tension. A conference in Puerto Rico sees Charpentier and Doudna strolling the cobbles of Old San Juan, with Charpentier saying earnestly, “I’m sure that by working together we can figure out the activity” of what became the Cas enzyme. “I felt a shiver of excitement as I contemplated the possibilities of this project,” Doudna writes. When first wrestling with the ethical dilemmas of gene editing, she dreams of meeting Adolf Hitler, who demands to know the secrets of her technique. She wakes, of course, freshly determined to ensure that CRISPR is not put to nefarious use.

The larger purpose of *A Crack in Creation*, clearly, is to show that Doudna is the true hero of CRISPR. And ultimately, despite the book’s flaws, I’m convinced. Nominators and the Nobel Committee will need to read this book. But CRISPR binge-watchers like me still await a truly satisfying account — one that is insightful, candid and contextualized. ■

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Books in brief

The Matter of the Heart: A History of the Heart in Eleven Operations Thomas Morris BODLEY HEAD (2017)

With the cut and thrust of cardiac surgery now demystified, we forget that venturing into the thoracic cavity once seemed as daunting as polar exploration. Or more so: as Thomas Morris reveals in this stirring chronicle, even touching a beating heart was long viewed as impossible. Told through 11 pivotal operations, it’s a tale of ingenuity, from Henry Dalton, who in 1891 became the first US surgeon to suture a pericardium, to artificial aortic valves implanted by robots. It’s rich, too, in alarming details — not least, the injections of strychnine and whisky that featured in early surgery.

Chief Engineer: The Man Who Built the Brooklyn Bridge Erica Wagner BLOOMSBURY (2017)

At its 1883 debut, the Brooklyn Bridge was by far the world’s longest suspension bridge — its construction a bravura feat founded on a deep understanding of geology. The life of chief engineer Washington Roebling also has a certain monumental quality, as Erica Wagner proves in this engrossing, exhaustive biography. The project took the lives of at least 20 workers and of its designer, Roebling’s truculent father John; Roebling himself was left with decompression sickness. But, as Wagner reveals, the central structure and main cables remain a rock-solid testament to engineering acuity and vaulting ambition.

Atomic Adventures

James Mahaffey PEGASUS (2017)

Nuclear scientist James Mahaffey’s gloriously nerdy tour of atomic research ranges over projects from the dead-end to the hare-brained (see also M. Peplow *Nature* **506**, 292–293; 2014). Here, for instance, are “obscure, third-tier scientist” Ronald Richter — who wasted US\$300 million of Argentinian government money on a crackpot scheme to build a fusion power plant in the early 1950s — as well as Mahaffey’s own serious work on the lost dream of cold fusion. You’ll learn, too, how to use a smartphone as a Geiger counter and what to pop in case of atomic attack (phosphorylated aminothiols, apparently).

The Sum of Small Things: A Theory of the Aspirational Class

Elizabeth Currid-Halkett PRINCETON UNIVERSITY PRESS (2017)

US economist Thorstein Veblen’s 1899 *Theory of the Leisure Class* held a mirror up to rich Americans deep-dyed in Gilded Age ostentation. Here, Elizabeth Currid-Halkett updates Veblen’s analysis, arguing that the leisure class is now aspirational, and that consumption has become inconspicuous — all heirloom vegetables and electric cars. Yet, ‘smart’ elites contribute to inequality just as surely as yesterday’s luxury addicts. A key companion to Robert Putnam’s survey of dwindling US social mobility, *Our Kids* (Simon and Schuster, 2015; see B. Kiser *Nature* **520**, 155; 2015).

A Hole in the Wind

David Goodrich PEGASUS (2017)

At the end of a high-level career in climate science, David Goodrich cycled from Delaware to Oregon looking for a “hole in the wind” — a human future in the unrelenting march of climate change. Over a rain- and sweat-soaked 6,700 kilometres, he encountered Pennsylvanians at the fracking frontline, forest fires in Wyoming and scores of people in diners, labs and schools profoundly concerned about coming realities. Ultimately, he sees humanity’s capacity for economic transformation and reform as up to the job. [Barbara Kiser](#)