

Thankfully, Contreras spares us the details, pulling out only nuggets that are needed to understand the case. He explains the science and legal arguments clearly and succinctly. (He does a better job of this than did some of the lawyers and justices involved, who trotted out painful analogies throughout the four-year process: genes were likened variously to chocolate-chip cookies, baseball bats and kidneys.)

For me, the most interesting parts of the book were its tangents. The *Myriad* story highlights the convoluted incentives in the genetic-testing industry that sometimes work against patients' best interests. I longed to learn more about how the Supreme Court's decision – as well as other recent decisions from the court on what can and can't be patented – had affected the industry. The book also lacks any international context for gene patents, which are alive and well in Europe. A 2017 survey of European genetic-testing laboratories found that 14% of non-profit respondents had refrained from offering a genetic test because of patent concerns (J. Liddicoat *et al. Eur. J. Hum. Genet.* 27, 997–1007; 2019).

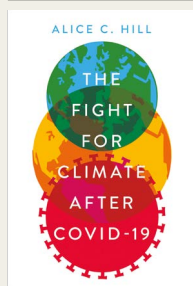
But Contreras succeeds in his main mission: to detail the narrative history of a landmark patent case. The personal stories of key players are rich with detail. We learn about Tania Simoncelli, who, as an ACLU intern with a passion for science and social-justice issues, first brought gene patents to the attention of Hansen. And we encounter Herman Yue, who, at the time that the case was launched, was an intern for a federal district judge, and who just happened to have a doctorate in molecular biology. Yue was pivotal in crafting a surprise early court decision in favour of the ACLU.

Readers are also treated to the inside story of the schism in the US government, with some agencies, most notably the patent office, in favour of gene patents, and the National Institutes of Health, among others, against them. It fell to acting solicitor general Neal Katyal to walk a tightrope between arguing parties, eventually developing a federal government stance: namely, whole-gene sequences as they are found in genomes should not be patentable, but the assembled protein-coding regions of a gene – minus intervening bits of non-coding DNA often scattered throughout – should. The compromise satisfied no one completely.

By 2013, when the Supreme Court issued its unanimous decision in favour of the ACLU, gene patents and *Myriad*-style testing of single genes were already falling out of fashion. Medical diagnostics had moved on to multi-gene testing, and now, increasingly, the emphasis is on whole-genome sequencing. But this story stands as a guide to the forces that shape an increasingly important industry – and to the vexed influence of patents.

Heidi Ledford is a senior reporter for *Nature* in London.

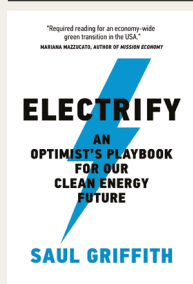
Books in brief



The Fight for Climate after COVID-19

Alice C. Hill *Oxford Univ. Press* (2021)

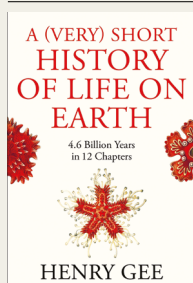
"No vaccine exists to solve climate change," writes Alice Hill, a former judge and US government adviser responsible for planning for catastrophic risks, including global warming and biological threats. Nevertheless, she proposes in this formidable analysis, governments trying to mitigate and adapt to global warming can learn from the pandemic. How so? Hill draws out lessons with regard to the importance of early action, cross-border planning and emergency preparation.



Electrify

Saul Griffith *MIT Press* (2021)

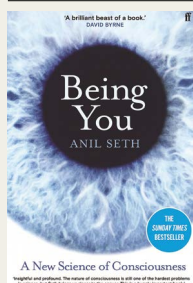
Engineer, inventor and entrepreneur Saul Griffith calls for all-encompassing electrification in the United States, using renewables to mitigate climate change. He likens it to industrial mobilization during the Second World War, and rewrites Winston Churchill's stirring speech: "We shall fight with our homes, we shall fight with our vehicles, we shall fight with our grid." Based on his earlier analysis of the energy economy, written under government contract, the book demands attention. But how will the required batteries be recycled?



A (Very) Short History of Life on Earth

Henry Gee *Picador* (2021)

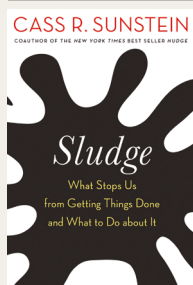
"Perhaps the most amazing thing about life – apart from its existence – is how quickly it began," writes Henry Gee, *Nature's* senior editor specializing in palaeontology. Life appeared in the ocean depths just 100 million years after Earth's formation, and reached the sunlit surface after another 800 million. His lively, lyrical history covers 4.6 billion years, from bacteria through dinosaurs to mammals including *Homo sapiens*. Humans, Gee says, will eventually become a thin layer in sedimentary rock, to be eroded as dust that sinks to the ocean bottom.



Being You

Anil Seth *Faber* (2021)

Neuroscientist Anil Seth dates his fascination with consciousness to a childhood jolt while looking in a mirror: the realization that the experience of "being me" would vanish when his physical body ceased to exist. Drawing on philosophy, biology, cognitive science, neuroscience and artificial intelligence, he argues that our brains are prediction machines that constantly invent our world and then correct our mistakes, so that our sense of self derives from our body. He admits: "perhaps it's not so bad if a little mystery remains" at death.



Sludge

Cass R. Sunstein *MIT Press* (2021)

In 2016, Americans spent 11.4 billion hours on federal paperwork – much of it unnecessary 'sludge'. Valued at the average US wage of US\$27 per hour, this equates to 6 times the Department of State's budget, notes legal scholar Cass Sunstein. Former administrator of a White House office created by the 1980 Paperwork Reduction Act, Sunstein confesses to making little progress. His utterly realistic, surprisingly readable book – partly inspired by the US "war on sludge" during the pandemic – aims to make up for this. **Andrew Robinson**