

international scientific guru and his love of new projects have seen him act as an adviser to three major scientific ventures: Singapore's Biopolis, the Okinawa Institute of Science and Technology in Japan and the Howard Hughes Medical Institute's Janelia Farm campus in Virginia. These projects all seek to do adventurous interdisciplinary research and have budgets large enough to attract talented scientists.

Brenner never stops talking, thinking and making jokes, on every subject. This makes him exciting, if not easy, to be around, especially for the thin-skinned. Brenner's style is not to everyone's taste, as Friedberg shows with a heated exchange of letters between Brenner and another scientist about an unnamed junior researcher. There are also perils in his being such a scientific grasshopper — his transient fancies have sometimes sent hapless students off on doomed projects. Brenner's most productive partnership was with Crick, who could pick out the jewels from the endless stream of wild thoughts, witticisms, projects and experiments.

Friedman makes a few errors in science, dates and names; he also gives a misleading impression of how Brenner and his projects were seen initially. The *C. elegans* work was viewed with scepticism, nationally and internationally, despite its power to entrance young scientists — myself included. Friedman skates over some other contentious episodes and failures in Brenner's career. For example, his close friendship with Victor

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Rothschild, another charismatic polymath, is described without mention of Brenner's consequent endorsement of the 1971 Rothschild Report, which was a misbegotten attempt to impose contract research on UK science. Some successes are also omitted, such as his recent work on elephant shark DNA, which has revealed ancient features of the vertebrate genome — and echoes his first research animal, the South African elephant shrew.

No biography could contain all of Brenner's provocative, funny and acute remarks. But enough are included, and the photographs do justice to Brenner's wild eyebrows and penetrating gaze. Friedberg wisely quotes others, notably fellow Nobel-prizewinner François Jacob, to provide the most vivid descriptions of his extraordinary subject. ■

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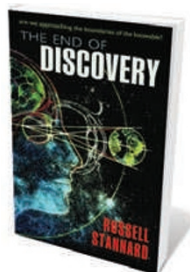
Books in brief



Almost Chimpanzee: Searching for What Makes Us Human, in Rainforests, Labs, Sanctuaries, and Zoos

Jon Cohen TIMES BOOKS 384 pp. \$27.50 (2010)

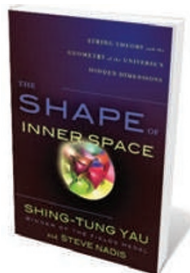
Science journalist Jon Cohen explores the ties between humans and our ape cousins. He visits labs, forests and zoos to give a frank and captivating account of the evolutionary parting of ways of the two species. Cohen argues that differences between apes and humans, rather than similarities, offer the most scope for discovery. Using the chimpanzee genome as his starting point, he asks why humans have bigger brains, walk upright on two limbs and have unusual immune systems, mating habits and longevity.



The End of Discovery: Are We Approaching the Boundaries of the Knowable?

Russell Stannard OXFORD UNIVERSITY PRESS 224 pp. £14.99 (2010)

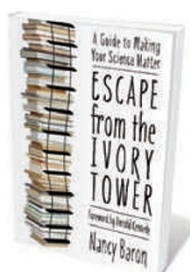
Scientific progress has a limit, according to physicist and broadcaster Russell Stannard. Some barriers are practical: it is impossible to build a particle accelerator the size of our Galaxy to reach the high energies he contends are needed to test string theory. Other fundamental problems — such as understanding consciousness or the Big Bang — are, he feels, inherently intractable. Stannard suggests we are living in a special age of scientific discovery that, like all good things, must come to an end.



The Shape of Inner Space: String Theory and the Geometry of the Universe's Hidden Dimensions

Shing-Tung Yau and Steve Nadis BASIC BOOKS 400 pp. £20 (2010)

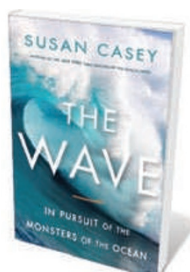
Physicists investigate one cosmos, but mathematicians can explore all possible worlds. So marvels Fields medallist Shing-Tung Yau in his memoir, co-authored by science writer Steve Nadis. Relating how he solved a major theoretical problem in string theory in the 1970s, Yau explains how the geometries of the vibrating multidimensional strings that may characterize the Universe have implications across physics. In pursuing these hidden geometries, Yau says that he seeks only mathematical beauty and truth.



Escape from the Ivory Tower: A Guide to Making Your Science Matter

Nancy Baron ISLAND PRESS 272 pp. \$27.50 (2010)

Communications trainer Nancy Baron offers practical advice for scientists on how to deal with politicians and journalists across all types of media. Drawing on her background in biology and journalism, Baron has used her workshops to transform many nervous scientists into spokespeople who are confident in front of a camera. When sticking up for their science, researchers should try to convey solutions to problems and embrace criticism, she suggests. She also describes how to survive in the aftermath of publicity.



The Wave: In Pursuit of the Rogues, Freaks and Giants of the Ocean

Susan Casey RANDOM HOUSE 352 pp. \$27.95 (2010)

Rogue waves large enough to scupper ships were once the stuff of seafaring myth, but are now settled in fact. Journalist Susan Casey illuminates the work of scientists who study tsunamis and giant ocean waves, noting that the physics of these freak swells is far from solved. Casey also follows surfer Laird Hamilton, who has pioneered techniques for riding extreme waves. She reminds us of their immense power and potential for energy production.