

Bitter pills

R. V. Short

From the Lab into the World: A Pill for People, Pets, and Bugs. By Carl Djerassi. American Chemical Society: 1994. Pp. 230. \$24.95.

SAMUEL Pepys described himself as having "a fine conceit", and no doubt Carl Djerassi would use the same epithet for himself. But perhaps we can forgive him this high opinion, because he has certainly achieved more than many of us could do in several lifetimes. As mentor to an annual army of 20 or more postgraduate and postdoctoral students in the department of chemistry at Stanford University, and sometime president of Syntex Research, he has always had his feet planted firmly in two camps, and has been driven by the need to find practical applications for laboratory discoveries. Working in a rival laboratory in New York in 1962, I can still remember our incredulity at Djerassi's scientific output, with almost a publication a week on the synthesis and spectral characteristics of some new steroid. The man's output has been prodigious — more than 1,200 scientific papers and 13 books — and now the American Chemical Society has invited him to republish a collection of his essays in its *Creators of Modern Chemistry* series.

Djerassi himself obviously had some doubts about the wisdom of this retrospective exercise, particularly as some of the essays were written in the early 1970s. He has already given us detailed popular accounts of his life's work in two of his books, *The Politics of Contraception*, a great read, and his less enjoyable recent autobiography *The Pill, Pygmy Chimps, and Degas' Horse*. So was there a need for a third book? Probably not.

The title of the new work is a bit of a catch-all, and seems designed to further Djerassi's bid to be remembered as Mr Oral Contraceptive Pill. But herein he does himself a disservice; the judgement is best left to others, and the accolade unquestionably goes to Gregory Pincus of the Worcester Foundation in Shrewsbury, Massachusetts. Djerassi admits that when he and his colleagues at the Syntex laboratories in Mexico City synthesized an orally active progestagenic steroid, norethindrone, in October 1951, the idea that it might be used as one of the components of an oral contraceptive pill had not even crossed their minds. Yet it should have done, for the concept of using progesterone to inhibit ovulation was well known to biologists in the 1930s and 1940s. It was Pincus, a biologist, who realized that it was necessary to combine an orally active oestrogen with an orally active gestagen in order to inhibit ovulation and control

menstruation, and it was he who organized the clinical trials that led to the eventual marketing of the first combined oral contraceptive pill. But Djerassi is understandably aggrieved that Pincus failed to acknowledge his indebtedness to the chemists such as Djerassi and others who provided him with a range of orally active oestrogens and gestagens. If one message comes out of this book, it is that progress could be accelerated if chemists had more biological insight and biologists were more aware of what chemists had to offer.

Djerassi will be best remembered for his landmark publication in *Science* in 1970 entitled "Birth Control After 1984", and it is good to see it reproduced here. Written from the viewpoint of the pharmaceutical industry, it described critical pathways for the development of a hypothetical abortifacient for women and an antifertility agent for men, and concluded that neither would be widely available in the next two decades. Although we knew all about steroidal antiandrogens and antioestrogens well before 1970, there had been no concerted effort by chemists to develop an antigestagen, and RU486 (mifepristone) was discovered by Roussel-Uclaf scientists in Paris only by accident while they were searching for an anti-

glucocorticoid. It is being used increasingly in Europe and China in conjunction with an oral prostaglandin for aborting early pregnancies, and women seem to prefer a medical as opposed to a surgical termination. But if biologists and chemists had been in closer communication with one another, surely the development of this much-needed abortion pill could have been greatly accelerated.

Djerassi's book concludes with a delightful, unexpected and moving chapter on art patronage. Tragically, his daughter committed suicide; "it took my daughter's suicide", Djerassi says, "to make me take seriously the patronage of the living". So he established a residential centre in California for visiting artists. Set in 600 acres of wooded country in the Santa Cruz mountains, overlooking the Pacific Ocean, it has become a place of inspiration for writers, painters, sculptors, photographers, composers and choreographers since 1979. For that, he will be long remembered, when the 1,200 scientific publications that made his philanthropy possible are long forgotten. □

R. V. Short is in the Department of Physiology, Monash University, Melbourne, Victoria 3168, Australia.

The bell curve revisited

Adam Kuper

The Evolution of Racism: Human Differences and the Use and Abuse of Science. By Pat Shipman. Simon and Schuster: 1994. Pp. 318. \$23.

THIS book, which tells the story of biological research on race, is certainly timely. The US media are going through one of their periodical convulsions about race and IQ, sparked off by the publication of *The Bell Curve* by Charles Murray and Richard J. Herrnstein. *Newsweek* made the controversy a cover-story, *The New Republic* devoted an entire issue to it and *The New York Times* ran turgid attacks on the authors virtually every day for a month. President Clinton said he had not read the book, but that he disagreed with its conclusions.

The reason for all the publicity is, of course, that, notwithstanding its parade of graphs and tables, *The Bell Curve* packs a controversial message about education policy (one cannot compensate for having the wrong genes) and, inevitably in the United States, this implicates race. The fuss will have come as no surprise to Pat Shipman. She shows that research on race always stirs up political passions. The scientific arguments are also wearisomely familiar. Discussing earlier controversies, she patiently and clearly reviews the

established and sound arguments that critics are now bringing in turn against *The Bell Curve*. It is notoriously tricky to define intelligence, and very hard indeed to design a measure of intellectual skills that is not biased in favour of children raised in middle-class, English-speaking, non-immigrant families. The racial categories (Caucasoid? White? Nordic? Mediterranean? Jewish?) are hopelessly crude. And environmental effects are, as always, treated as a stable residual factor, despite the fact that, for example, the famous US Army IQ tests during the Second World War revealed that blacks from states with a decent educational system scored better than whites from states with a poor educational base. The argument about race and intelligence has been long, bitter and fruitless, and it is certainly worth recalling all the other bitter and largely inconclusive arguments that echo through current controversies.

Shipman begins her story with the Darwinian revolution (rather than, for instance, with the father of racial science in Britain, J. C. Pritchard), evidently because this is, for her, the moment when true science enters the lists; and she gives a vivid account of the emergence of evolutionary theory. But she might have said more about Darwin's own, changing view of the human races, and his notions about