The Rise & Fall of Modern Medicine

By James Le Fanu

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The modern historian Paul Kennedy has become something of a cult figure. His elegant examination of the cycle of relative ascendency, and then decline, of great powers is reputedly compulsory reading in Downing Street, the White House and the Kremlin. He argues that great powers arise when one nation establishes superiority—usually for geopolitical reasons—over its neighbors. Expansion, invariably at the expense of its colonies, continues until the empire over-reaches itself and it can no longer sustain itself. Inexorable decline becomes inevitable.

James Le Fanu, in his account of the Rise and Fall of Modern Medicine, lacks the intellectual rigor of Paul Kennedy. Le Fanu sets out to resolve a contemporary paradox: that although the achievements of twentieth century medicine have been unprecedented, four questions need answering. Why are many doctors, themselves, disillusioned with their trade? Why is the public reoccupied with its health at a time when, in the western world, its health has never been better? Why has alternative medicine become so popular? And how can we cope with the spiraling costs of health care?

These questions are worth answering, for they highlight a contemporary mystery. Le Fanu tries to do so first by describing, in a long prologue, some of the "definitive moments" of modern medicine; then by examining the scientific and technological background; and finally by recounting what he perceives to have been the causes of medicine's apparent decline in public and professional esteem.

The prologue is unquestionably the most readable part of the book. Le Fanu chooses, from a list of significant advances, the 12 that he regards as "definitive moments." Although I, myself, do not entirely share his selected topics

(why, for example, exclude poliomyelitis vaccination?) the accounts of those he has chosen are engaging and full of interesting detail. His description of the tenacity with which Patrick Steptoe and Bob Edwards developed *in vitro* fertilization, and the story of John Charnley's

pursuit of hip prostheses, are revealing. His account of the massive contributions to contemporary medicine made by Austen Bradford Hill is both accurate and engaging. It was Bradford Hill, of course, who persuaded a reluctant medical profession, during the 1930s and 1940s, to accept the notion of randomized clinical trials as the 'gold standard' for deciding

the efficacy of a new drug. And he went on to develop the case-control method in showing the relationship between smoking and lung cancer.

Thereafter, though, Le Fanu's thesis is unconvincing. He claims that the intellectual forces that created post-war medicine—clinical science, technology, and pharmaceutical innovation—have been lost. And he claims that they have been replaced by an obsession with what he calls the "Social Theory" and "The New Genetics." I myself am an unrepentant and unreconstructed clinical scientist. Although I accept that molecular biology and genetics have played, and will continue to play, an important part in shaping the future of medicine I also agree that they have been overpromoted-and overfunded-by the combined efforts of the Research Councils and the Research Assessment Exercise.

But neither they, nor his attack on epidemiology ("Social Theory"), begin to explain his paradoxes. When John Snow removed the handle from the Broad Street pump, to abort a cholera epidemic in Soho, his actions owed everything to epidemiology and noth-

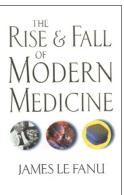
ing to microbiology.

Le Fanu's book might have been better entitled *The Rise and Fall of Medical Hegemony*. What he describes is the decline of medical imperialism and the emergence, if you like, of clinical republicanism. For Le Fanu seems to have difficulties in adjusting to modern conditions. Medicine, now and more so in the future, must be un-

dertaken by a team that includes patients as well as nurses, pharmacists, therapists and paramedics. No longer is the doctor the polymath with an encyclopedic knowledge of clinical practice, the skills and of the pharmacist, and the wisdom of Solomon.

The answers to Le Fanu's paradoxes are more subtle. Medical education has not been entirely successful in fitting young doctors to their new role. Patients have expectations about health, and an intolerance of ill-health, that stem from our past successes. Alternative medicine offers a confidence that those of us weaned on 'evidence-based' medicine find difficult to sustain. And the increasing costs of health care is, again, a consequence of our past successes (especially increased longevity) rather than of current failures.

There is a story to tell, but this is not the one.



Chemokines and Cancer

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The recruitment of defense cells by chemokines is a fundamental feature of inflammation and immunity. Chemokines are expressed in most pathologies, and tumors are no exception. As the editor points out in introducing Chemokines and Cancer, leukocytes are often found within and around tumors and chemokines are often produced by tumor cells. Are tumor cells altruistic and elicit defense, or do they produce chemokines for their own purposes? Nobody knows, and despite the obvious importance of this question, tumor biology has remained a borderline issue in the chemokine field. The players are busy with simpler, more rewarding games, and in fact most contributions to this book are written by scientists who are not mainly working on chemokines in the context of cancer. The book attempts to take a "snapshot," as Rollins