prevention—the case of strokes" is an optimistic view of the development of hypotensive agents. Most surprisingly, the contraceptive pill is not included as a "definitive moment", though it has perhaps done more for human welfare and happiness than any other discovery of the century. Some small errors in chemistry do not spoil any of the excitement of these stories.

The rise ended with the dearth of new drugs and the failings of technology. The fall came, according to Le Fanu, with two kinds of research, genetics and epidemiology, which have not justified the enormous effort put into them. He suggests that the introduction of genes into novel environments, the understanding of the genetic disorder in hereditary diseases, and attempts to transplant genes have contributed very limitedly to human benefit, and he argues that these activities could not be expected to contribute much. Likewise he is highly critical of opinions that an unhealthy lifestyle or faulty diets have much to do with heart disease and cancer.

Committed advocates will no doubt disagree with his judgements, but what he writes deserves serious thought. Not only medical literature but public opinion has become riddled with correlations sloppily regarded as causes without a shred of supporting analysis.

Le Fanu recognizes four paradoxes, which he neatly labels "Disillusioned doctors", "The Worried Well", "The Soaring Popularity of Alternative Medicine" and "The Spiralling Costs of Health Care", all of which are indeed of much concern today. He inclines to the view that medicine will continue to develop its technical skills and augment the problems which already exist, and that these scenarios will get worse. What ought to happen, he suggests, is an independent inquiry powerful enough to slay his two rampant dragons, the "intellectual falsehoods of The Social Theory" and the "intellectual pretensions of The New Genetics". Also, the ideology of

progress should be laid low, the public and the profession disabused of the idea that all progress is good, and medicine should be relocated "within that tradition so eloquently evoked by Sir William Osler". It would be interesting to bring Osler to life and see how he handled today's medical resources.

Surely this is far too simple a solution, although anything which leads to more respect for patients by doctors is welcome. The "rise of medicine" did much to dehumanize medical practice, to see patients as bits of physiological machinery brought in for investigation, or raw material for the display of surgical brilliance. But that amorphous entity "the public" has always welcomed every talk of a new cure, and the media leap at every chance to please its hopes, and also rouse its fears. Le Fanu wisely expects all the pressures from outside medicine to go on or increase. How depressing! Is there no remedy for the consequences of progress?

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Robert A Aronowitz, Making sense of illness: science, society, and disease, Cambridge History of Medicine series, Cambridge University Press, 1998 pp. xii, 267, £30.00, \$29.95 (hardback 0-521-55234-6), £11.95, \$17.95 (paperback 0-521-55825-5).

The title may appear to be somewhat of a misnomer, Aronowitz being concerned less with the patient's own response to an illness, or to an illness's diagnosis, than with the disease's nosological status within the doctor's system of classification: with professional conflicts over the style of medical practice, its specialization and the role of new

technologies, and the status of clinical observations and epidemiological data in a particular era. As a clinician, and starting from his own practical dilemmas, he considers the development of controversial "new" diseases: controversial because of the suggestion of social factors in their etiology, a finding which biomedicine alone cannot easily handle.

He considers certain instances where the fit between the patient's illness and the doctor's disease is poor—sicknesses which fail to satisfy an earlier biomedical assumption of one gene, one protein, one disease. The book opens with myalgic encephalomyelitis ("post-viral fatigue syndrome"), which in its modern form appeared in 1934 in Los Angeles as "atypical poliomyelitis" causing few deaths and little paralysis, and which occurred among health workers in an environment of strict isolation of putative cases; compare the Royal Free Epidemic of 1955 in London. Aronowitz pays some attention to the role of public opinion and self-help groups in promoting the popularity of the disease but not the fuller type of anthropological analysis: new notions of "fatigue" or "virus", or indeed of the general nature of self-help groups as cults of affliction which Janzen has aptly termed "Drums Anonymous".

In the 1950s, the psychoanalytically orientated idea of "psychosomatic disease" such as ulcerative colitis, with its particular personality type and style of psychological defences, was replaced by the more modest (but more biomedical) "physical disease affected by psychological factors" as the third revision of the Diagnostic and statistical manual put it: a new paradigm influenced by the efficacy of steroid treatment, the then current idea of autoimmune disease, and the problem of etiology where one had multifactorial causation. In the 1970s, an epidemic in Lyme, Connecticut, led to the crystallization of Lyme Disease out of the earlier and symptomatic erythema chronicum migrans,

an episode considered a significant advance by clinical and epidemiological pathology by analogy with the particularization of syphilic lesions out of a number of earlier inchoate symptoms. Lyme Disease, attributed to a tick-born spirochaete, led to a public panic: to environmental campaigns to defoliate American suburbia, presymptomatic antibiotic treatment, general health campaigns and the screening of donated blood.

Similarly, the author shows how the new biomedical entity of coronary heart disease crystallized out of the earlier and only symptomatic angina pectoralis, the physiological emphasis on the coronary arteries now facilitating the emergence of the new clinical speciality of cardiology. Symptomatic heart distress was relegated to "effort syndrome" or "neurocirculatory asthenia". The more discrete CHD was then associated with an upper-middle-class and white population, but has more recently been associated with its opposite.

The idea of "risk factors" in CHD. associated with the Framingham study, has been criticized as a list of ingredients rather than a recipe, as too individualistic and ignoring milieu and interaction. Risk factors became treatable conditions themselves. The book all too briefly considers the idea of risk as a new social idiom, and takes the rise and fall of Type A personality (excessive conscientiousness and time urgency) as an example of relatively marginal doctors proposing a new mechanism (whose name would not offend potential psychologist referees concerned about the invasion of their turf) and which temporarily proved popular because of its links to the then fashionable cholesterol hypothesis and its vague fit with countercultural aspirations.

Aronowitz ignores Helman's well-known and excellent paper on Type A and notions of time, to trace the decline of Type A theories to purely biomedical findings (social change being perhaps more significant). The book is likely to appeal

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more to historians of particular conditions and to physicians concerned with their own procedures of classification and practice than to medical social scientists. Little broader scope but an interesting practitioner's perspective.

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Henry Harris, The birth of the cell, New Haven and London, Yale University Press, 1999 pp. xii, 212, illus., £20.00 (0-300-07384-4).

Harris offers a solid description of microscopic anatomy chiefly for the nineteenth century, with forays especially before. Readers will quickly discover Harris's passion for the topic, its workers, and the art of observing things microscopic. The author is a highly experienced microscopist who here is tracing the historical origins of his practice in search of the process of assembly: how did evidence for cell theory come to be collected? Who was responsible for discovering what? Harris's goal is to look past "many standard accounts ... in particular the perfunctory versions given in general textbooks" (p. xi) and describe a far more complex network of research in which internal tensions and competing projects are brought to the foreground. Who really discovered the cell doctrine, and what else was discovered in the process?

Harris deserves much praise. The examined range of primary published sources is impressive. So too is the provision of quotes, with English translations accompanied by an appendix of original language texts. Harris's coverage is broadly European, and his

awareness of intra-European rivalries makes him sensitive to looking past favouritism grounded in nationalism. This sensitivity brings Harris to offer valuable descriptions of early nineteenth-century French research, including that by Henri Dutrochet and François Raspail, in an effort to prove not everything new came from a small set of German hands. Others, too, are saved from similar "historiographical injustices" (p. 64) as Harris builds a diverse and talented community around—plus a populous intellectual parentage for-well-known cell theorists such as Matthias Schleiden, Theodor Schwann, and Rudolf Virchow. They certainly were not alone. This book provides superb coverage of relevant researchers and texts. Harris's expertise with the craft of microscopy combines with his scholarly eye for detail in the literature. This is a work of immense patience and care. As epilogue, short chapters also consider late nineteenthcentury investigations of chromosomes and determinants of heredity.

Yet, historians will be disappointed. Harris forces his historical actors to see through his eyes and not their own. This presentism is explicit (pp. 24-5) and defended on realist grounds—Harris is too experienced a microscopist to let nature count for nothing in the construction of facts. But here he goes too far. By reducing research to a primitive form of discovery (where either we see it properly or we don't). Harris fails to value the distinction between seeing and seeing as. The complex interpretative matrix filtering observation as each microscopist peered through their lenses goes unexamined. How can cell thinking be sensitively described while complex debates about the origin of life and the nature of animation are excluded? Nature underdetermines understanding. Whether they include natural theology, animalicular theory, Naturphilosophie, or harsh materialism, these matrices shape the ways researchers