From the library

Remembrance of things past-I
In Borges, we have the anomaly of a Hispanic writer who first read *Don Quixote* in English translation, and whose literary culture, though universal, remained English and North American in its deeper sensibility. Still Borges, oriented toward a literary career, was haunted by the military glory that had dominated both his father's and his mother's families. Inheriting the poor eyesight that had kept his father from becoming an officer, Borges seems to have inherited also his father's flight into the library as a refuge in which dreaming could atone for an impossible life of action. (Harold Bloom. *The Western Canon*. New York: Harcourt Brace, 1994:464.)

The use of statins and prevention of dementia
The use of statins to reduce cardiac death is now well established. Because vascular and lipid related mechanisms are thought to play a part in the pathogenesis of Alzheimer's disease and vascular dementia, the possibility that statins might reduce the incidence of these disorders has been considered. A recent study from the University of Massachusetts Medical School demonstrated that individuals of 50 years and older who were prescribed statins had a substantially lower risk of developing dementia compared with those who did not receive the same medication. (*Lancet* 2000;**356**:1627–31.)

The poor health of cloned animals
Although cloning animals has been viewed as a spectacular scientific success, animals born as the result of this process are often sickly or unusually large and many do not live long. Researchers produced 277 cloned sheep embryos before achieving a live birth with Dolly. Investigators at the Roslin Institute in Scotland have recently demonstrated that when sheep embryos are manipulated in the lab, they frequently lose some of the methyl groups attached to their genes. This small change apparently alters the production of proteins, which are key to the animal's survival. Studies are under way to investigate the specific protein that is altered by this abnormality. (*New Scientist* 2001;3 February: 7.)

What causes type-2 diabetes?
Type-2 diabetes is characterised by resistance to insulin. About 80% of humans with type 1 diabetes are obese. Until recently, the linkage between obesity and type 2 diabetes remained undefined. Recent studies by Steppan have identified a new protein secreted by fat cells that directly antagonises insulin action. This protein is called resistin and is present in elevated levels in the blood of obese experimental animals. Blocking resistin with antibodies stimulates glucose uptake and lowers blood glucose levels and improves insulin sensitivity in obese mice. Resistin may prove to be a valuable target for the development of new antidiabetic therapies. (*Nature* 2001;**409**:307.)

Improved magnetic materials for magnetic resonance imaging
Magnetic resonance and spectroscopy systems use coils either singly or as arrays to intercept radiofrequency magnetic flux from regions of interest deep within the body. Microstructured materials can manipulate electromagnetic radiation. Recent studies have demonstrated the unique properties of a microstructure magnetic material operating in the RF band. This material appears to have the potential to change approaches to optimising the coil in nuclear magnetic resonance systems, especially in MRI scanners. Use of these materials could fundamentally change existing approaches to magnetic resonance imaging and spectroscopy. (*Science* 2001; **291**:849–51.)

Why do we have no effective AIDS vaccine?
According to market research information, the worldwide market for all human vaccines totalled $3.3 billion in 1998. In contrast, the single best selling drug that year, Prilosec, brought in $4 billion. Does this financial disincentive to develop vaccines prevent major pharmaceutical companies from putting more effort into developing an AIDS vaccine? Leading AIDS investigators have long baulked at the idea of establishing a central agency to direct research. Does the relative disorganisation of AIDS investigation contribute to the failure to develop an AIDS vaccine? These and other questions are addressed in a new provocative book by Jon Cohen, entitled *Shots in the Dark: The Wayward Search for an AIDS Vaccine*, published in January by WW Norton.

Is autism related to vaccination?
Controversy surrounds the question of whether the combined measles, mumps, and rubella vaccine (MMR) is related to the increase in cases of autism seen over the past two decades. A recent study in Finland suggests this is not the case. This long term follow up study of 1.8 million individuals vaccinated over 14 years did not find that any cases of autism or inflammatory bowel disease could be linked to (MMR) vaccination. (*Pediatric Infectious Disease Journal* 2001;**19**:1127.)

Too much alcohol, not enough sleep
The problem of poor sleep after consumption of too much alcoholic beverage is a phenomenon well known to many of us. Recent studies suggest that alcohol consumption directly inhibits night-time melatonin levels. In a recent study from Connecticut one alcoholic drink had no effect on melatonin levels, two drinks reduced the level by 9%, and three or more reduced it by 15–18%. Whether alcohol's interference with melatonin is the sole factor in alcohol's interference with the normal sleep pattern has yet to be determined. (*Epidemiology* 2000;**11**:660–5.)

Can deaths from cardiac shock be reduced?
Cardiac shock is the leading cause of death for patients hospitalised with acute myocardial cardiac infarction and mortality remains high during the following year. The SHOCK Multicenter Trial has demonstrated that in patients with acute myocardial infarction complicated by cardiac shock, early revascularisation resulted in an improved 1 year survival. The recommendation for rapid transfer of patients with acute myocardial infarction complicated by cardiac shock to medical centres capable of providing early angiography and revascularisation features appears to be prudent. (*JAMA* 2001;**285**:190–2.)

The cost of attention deficit disorder
Attention deficit/hyperactivity disorder (ADHD) is a relatively common behavioural disorder of childhood with important consequences for affected individuals, their families, and society. In a study from the Mayo Clinic, medical care costs and utilisation for patients with ADHD were compared with normal children. The 9 year median cost for people with ADHD compared with those without it was more than doubled ($10 944 versus $4306). These findings are consistent with previous reports that individuals with ADHD exhibit more psychosocial co-morbidity, chronic health problems, and adverse medical outcomes. (*JAMA* 2000;**285**:60–6.)

Remembrance of things past—II
Eyes of certain animals and fish are considered a delicacy in some culinary cultures, but regarded as horrifying morsels by most people in the western world. In tales about the ordeals of western visitors, who for reasons of courtesy have to adjust their behaviour at table to match that of their host, say, the Middle East, the ultimate moment is likely to come when the visitor is invited to eat a sheep's eye. In Laos, the eyes of the giant catfish of the Mekong are among the most highly esteemed parts of this highly esteemed fish. Examples could be multiplied but the practice of eye eating (even if cornea, lens and iris are removed, as in one unusual French recipe for yeux de veau farcis) seems likely to contract rather than spread as the centuries roll by. (Alan Davidson. *The Oxford Companion to Food.* Oxford: Oxford University Press, 1999:285.)

Recommended reading
Pandora's Picnic Basket: The potential and hazards of genetically modified foods. Alan McHughen. Oxford: Oxford University Press, 2000.
Because of organisms sharing a common genetic language, in DNA, a gene for desirable trait can be taken from one organism and inserted into another where it will be processed and understood by the new host as an unrelated species. This potential for genetic engineering has agricultural, medicinal, industrial and environmental applications, but protests against it have focused primarily on food and agriculture. Most recent popular books on the subject have been decidedly opposed to genetic modification. McHughen's book rectifies this bias. His goal appears to be to dispel myths about engineered crops and to provide enough background information that educated readers can form their own opinions about the technology. McHughen is a senior scientist at the University of Saskatchewan and is obviously a knowledgeable expert in the field. The book is clearly written and is perhaps only flawed by the fact that no references are provided. None the less, this is a welcome addition to the literature on the subject.