

# BJO at a glance

"Pioneering research moves forward while society continually monitors and receives the benefits by translating discoveries into patient care. History shows the folly of more oppressive interventions. Trofim Lysenko was a maverick biologist who convinced Joseph Stalin in the 1920's that the Darwinian view of natural selection was wrong. Darwinian genetics consequently had no home in Russia for decades, while American agriculture and medicine prospered very significantly aided by migrant Russian geneticists. The Russian way, then, held the ideology trump science, leading to a loss of good science for generations. A spectre of Lysenkoism haunts the US debate over stem cells." (Weissman, Irving. *The Ghost of Lysenko*. *Scientific American* 2005; **293**: A27)

Paraneoplastic and autoimmune retinopathies represents significant causes of otherwise unexplained acute or sub acute vision loss in adults. Cancer-associated retinopathy or CAR is a term that has been used for the retinal degeneration first described by Sawyer and associates. Several distinct forms of autoimmune retinopathy have been described. The aetiology and source of antigenic stimulation vary but are largely unknown. A distinct syndrome with antibodies directed against enolase has been identified. Twelve of 87 patients with unexplained retinal visual symptoms associated with abnormal ERG's were found to have antibodies against enolase. Four of these patients developed cancer. The clinical characteristic of this disorder is an early loss of central visual acuity with optic disc pallor that evolves later in the disease. (*Amer J Ophthalmol* 2005; **139**: 780-94)

Eating disorders, including anorexia and bulimia nervosa, are characterised by abnormal eating behaviour and typical psychopathological features, including fear of fatness, drive for thinness, and body image disturbance. In most patients there is no detectable focal brain abnormality. A number of case studies describe eating disorders with intracranial tumours, injuries, or epileptogenic foci. A report from the Institute of Psychiatry Kings College, London has provided a systematic review of published case reports and suggests that previous reports linking eating disorders to hypothalamic disturbance are misleading and that there appears to be a major role of frontotemporal circuits with right hemispheric predominance in the pathogenesis of eating

disorders with focal neurologic disease. (*J Neurol Neurosurg Psychiatr* 2005; **76**: 852-7)

The emergence of certain diseases appears to be linked to the interference of man in various ecosystems. There are worries that the Three Gorges Dam may be producing such a medical hazard. Evidence suggests that the development of the dam is driving an increase in schistosomiasis infection around China's greatest lake. Investigators suggest that the intermingling of two snail subspecies that had been separated by the Three Gorges before they were dammed have provided the parasite more genetic diversity from which to choose. (*Sci Amer* 2005; **293**: 21-2)

Diplopia following cataract surgery can arise as a result from a number of different causes. However, in the last decade an increasing number of reports of myotoxicity from local anaesthetic injections directly into the extraocular muscle has been reported. Whether or not the use of hyaluronidase affects the frequency of this complication has been a matter of controversy. At least one retrospective study suggests that a protective effect of hyaluronidase on complications such as diplopia. In a large study from Paris a comparison of more than 3000 patients undergoing phacoemulsification and intraocular lens implantation performed under peribulbar anaesthesia without hyaluronidase was compared to an almost equal number of patients undergoing phacoemulsification with peribulbar anaesthesia and hyaluronidase. In the 3,582 patients who received peribulbar anaesthesia with hyaluronidase not a single case of diplopia was reported. However, in the 3,623 patients receiving peribulbar anaesthesia without hyaluronidase 27 cases of diplopia occurred. The authors suggest that this observational case series study with a large number of patients strongly suggests that hyaluronidase is protective when administering peribulbar anaesthesia prior to cataract surgery. The recent withdrawal of hyaluronidase from the market should be reconsidered according to these authors. (*Ophthalmol* 2005; **112**: 879-82)

The battle continues to rage as to what the best diet is in order to obtain the best cholesterol and lipid levels. A low fat diet is obviously one way of achieving this. A recent study suggests that a low fat diet works even better if it includes plenty of fruit, vegetables, and whole grains. Investigators suggested that the added effect of these items in their low fat diet

is probably due to soy fibre, garlic, and plant sterols in the diet. (*Ann Int Med* 2005; **142**: 725-33)

Controversy surrounds the choice of therapy for the treatment of prostatic cancer. Some men have even assumed the tactic of watchful waiting was an acceptable alternative to surgery and/or radiation therapy. After 6 years of follow up patients undergoing radical prostatectomy the advantage of surgical treatment of this disease seems clearer. Radical prostatectomy reduced the risk of death due to prostate cancer by 50% and the risk of distant metastases by 37%. Moreover, men who had surgery were less likely to die of prostate cancer; 8.6% v 14.4% or developed metastases; 19.2% v 44.3% in men who did not have surgery. The authors suggest that watchful waiting may only be a viable option in men with prostatic cancer if routine monitoring of prostate specific antigen is part of this process. (*New Eng J Med* 2005; **352**: 1977-84)

Nevertheless, investigators at the University of Toronto have recently reported that 60% of 20 unmedicated ADHD children no longer met the clinical criteria for that disorder after 5 weeks of training. This training involves working with schools to introduce teaching methods that train working memory. This is based on the notion that working memory deficits may underly several disabilities not just ADHD. A clinical trial in Sweden and New York City will be initiated this year in order to test whether this alternative to drug therapy should be widely advocated. The authors conclude that a small number of patients still may require medical therapy including Ritalin but that a large number of patients with ADHD may be successfully treated with behavioural therapy. (*J Amer Acad Child Adolescent Psychiatr* 2005; **101**: 238-41)

Investigators from Wake Forest University have identified the effect of lens stiffness as a potential problem in ocular injury after blunt trauma in the elderly patient. In a simulated model these authors demonstrated that trauma induced damage to the lens, ciliary body, and zonules in the elderly patient may be related to the increased stiffness of the lens. The authors further suggest that elderly individuals should use safety systems while driving an automobile and sit as far from the air bag as is comfortable. (*Arch Ophthalmol* 2005; **123**: 789-794)