Rajendra is a very old Sanskrit name, a combination of ‘Raj’ and ‘Indra’ (a vedic god), which conjugates into Rajendra. Lactulose and lactitol are considered standard treatment for hepatic encephalopathy but a systematic review of 22 trials finds insufficient evidence to support or refute their use. This means that these compounds need no longer be used as comparators in trials of new treatments for hepatic encephalopathy, say the authors. British Medical Journal, 2004, 328, 1046–50.

Stem cell plasticity means that transplanted marrow cells could differentiate into neural and other cells. But do they? The brains of three women with leukaemia who received bone marrow transplants from their brothers were studied post mortem. Researchers found Y-chromosome positive hippocampal cells in all. These cells could only have come from their brothers, which means that bone marrow can make brain. Lancet, 2004, 363, 1432–37.

Very high plasma homocysteine levels are characteristic of homocystinuria, which is accompanied by early onset of osteoporosis as well as the problems that neurologists occasionally see. Now a Dutch population based study, published in the New England Journal of Medicine finds, that an increased homocysteine level is an independently associated risk factor for osteoporotic fractures in older men and women. Modifying this factor by dietary intervention is possible, but will it reduce the fracture rate? New England Journal of Medicine, 2004, 350, 2033–41.

Allogenic bone marrow transplant before the age of two years halts the progression of Hurler’s syndrome (mucopolysaccharidosis type 1). The problem of course is to find suitable donors. Using cord blood transplants from unrelated donors is a possibility, and researchers from North Carolina tried it in 20 children. The good news is that they found it to be an excellent source of stem cells. Transplantation improved cognitive performance and decreased somatic features. New England Journal of Medicine, 2004, 350, 1960–9.

Cryptococcal meningitis is often a fatal opportunistic infection in HIV-infected individuals especially in Africa and Asia, and better antifungal treatment may help reduce mortality. A four-arm trial randomised 64 patients to various regimens of antifungal agents (amphotericin, fluconazole and flucytosine) and found that amphotericin B combined with flucytosine was significantly faster at clearing the CSF of cryptococci. But does that make the patients any better? Lancet, 2004, 363, 1764–7.

Postoperative recollection of events occurring during general anaesthesia, or ‘awareness’, is an uncommon but distressing complication of anaesthesia. Better monitoring of consciousness could perhaps reduce its occurrence. Australian researchers, in a randomised controlled trial in over 2500 patients, tried a special monitor that displays a bispectral index to indicate the depth of anaesthesia and thus helps to adjust the dose of anaesthetics. Time domain, frequency domain, and bispectral analysis of the electroencephalograph obtained from a sensor attached to the patient’s forehead are used to generate the bispectral index. Two patients reported awareness in the intervention group and 11 in the controls. Lancet, 2004, 363, 1757–63.

To provide end of life palliative care to people with dementia we would like to be able to identify those not expected to survive beyond six months. Now a better prognostic risk score using 12 variables is available to predict survival. The study carried out in New York and Michigan finds that older age, greater functional impairment, male sex, cardiovascular disease, diabetes, and poor nutritional disease are associated with poor survival. Journal of the American Medical Association, 2004, 291, 2734–40.

So who would like to do post-residency fellowship training in redox neurology? A position paper argues that, in view of the dramatic increase in publications implicating free radicals and oxidative stress in virtually every aspect of biology and medicine, we need to recognize this nascent discipline as a subspecialty of neurology and develop it further. If this vision becomes reality, you could soon aspire to become a redox neurologist. Annals of the New York Academy of Science, 2004, 1012, 342–55.