“The most important news, however, was that Aldous, on a visit to the oculist had demonstrated near-normal vision. Huxley had told Harold Raymond, two months earlier that Bates exercises had raised his vision from 15% of normal to 50% and further improvement was expected. “I am already doing all my reading (as much as two hours a day or more) without glasses, which is rather remarkable. When he delivered the manuscript of After Many A Summer in August he claimed that: “I wrote it and revised the script (always a very trying job) without spectacles—a remarkable tribute to the efficacy of the eye-training I have been taking.” He was, however, using a typewriter with a large typeface to make this assertion. In a long account of the details of the improvement sent to Julian, he claimed to be able to read the seventy-foot line on the eye chart at six feet. He claimed the scar-tissue was clearing up and hoped that the bad eye would get up to the level that the good eye used to be.” (Murray, Nicholas. Aldus Huxley: An English Intellectual. London: Little, Brown, 2002:320)

Herbal and botanical medicine has been used for centuries. In many countries there is increasing use of these medications with little available information about their effects and complications. Researchers from Boston University School of Public Health found, in a recent survey of nearly 2600 people, that 16% take prescription drugs in addition to herbal or other supplements, which may lead to harmful interactions. Now there is a website available for physicians and patients to evaluate these potential interactions of herbal and botanical medicines with standard prescription drugs. This has been created and maintained by Integrative Medicine Service at Memorial Sloan-Kettering Cancer Center in New York. (Go to www.msckc.org/about herbs)

While some of us seem to be gifted with near total recall many of us despair at our less than perfect memory. Now a gene variant inherited by approximately one third of all individuals has been identified that apparently inhibits important memory tasks. Brain derived neurotrophic factor (BDNF) is vital for neuronal health. A genetic variant encodes a slightly altered version of BDNF by replacing one valine amino acid with methionine. As a result of this single amino acid alteration BDNF gets trapped inside the body of neurons and fails to reach the synapses where its normal role is to regulate memory. (Cell 2003;112:257–69)

The epidemic of childhood obesity in many developed countries continues to be a major problem. In a study from Munich, Germany, of data from school entry health examinations in six Bavarian public health offices a dose dependent association between childhood obesity and maternal smoking during pregnancy was documented. This confirms a recent cohort study which suggests that maternal smoking during pregnancy appears to be a risk factor for childhood obesity. (American Journal of Epidemiology 2002;156:954–61)

Interferon beta reduces relapses in MRI activity in relapsing-remitting multiple sclerosis. A randomised controlled multicentred trial has now compared the efficacy of interferon beta administered substaneously three times a week versus interferon beta injected intramuscularly once a week. This study suggests that interferon beta injected subcutaneously three times a week was more effective than interferon beta injected intramuscularly once a week. Whether a similar efficacy holds true for patients with optic neuritis without multiple sclerosis has yet to be determined. (Neurology 2002;59:1496–506)

The problem of antibiotic resistant bacterial infections continues to be a major concern in the treatment of infectious disease. In a report of intensive care unit infections, between 1994 and 2000, 35 790 non-duplicate Gram negative aerobic isolates were analysed. In this study the overall susceptibility of ciprofloxacin decreased steadily from 86% in 1994 to 76% in 2000, and was significantly associated with the increased national use of fluoroquinolones. This study documents the increasing incidence of ciprofloxacin resistance among Gram negative bacilli that has occurred coincident with increased use of fluoroquinolones. More judicious use of fluoroquinolones will be necessary to limit this downward trend. (JAMA 2002;289:885–8)

A study of brain tissue from patients who died following bone marrow transplantation has provided convincing evidence that blood stem cells can migrate to the brain and emerge as clumps of active grey and white matter. In a study of brain autopsies, samples from two women and two girls, all of whom died from leukaemia and who had received bone marrow transplants from males, the documentation of neurons with Y chromosomes provides convincing evidence of the ability of blood stem cells to respond to brain signals. (Proceedings of the National Academy of Sciences 10.1073/pnas.0237386100)

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There is increasing evidence that there may be neurophysiological correlates for a number of phobic disorders. In a study from the University of California in San Diego 15 subjects with generalised social phobias were studied with functional MRI techniques. In this study patients with generalised social phobias who were shown pictures of human faces with angry expressions demonstrated a significant increase in the activity of the amygdala, uncus, and parahippocampal gyrus compared to normal non-phobic controls. These findings are consistent with a role of the amygdala in generalised social phobias. Better pharmacological treatment for these disorders may result from these studies. (Archives of General Psychiatry 2002;59:1027–34)

Another setback for gene therapy has been documented in the trial of treatment of X linked recessive combined immunodeficiency disease. In a clinical trial with gene therapy to correct this genetic disorder nine of 11 boys have apparently been cured of this condition that involves severe defects in T cell and B cell immunity. Unfortunately, two children who developed leukaemia in this trial and as a result the trial has been put on hold. Those patients who have undergone treatment are now being closely monitored. (Go to http://agned.sante.gov.fr/htm/11/11000.8.htm)

Researchers from the Pasteur Institute in Paris have developed a rapid diagnostic test for the plague bacterium that could help control the disease in developing countries and speed up detection of treatment of the infection if used in a bioterrorist attack. Researchers have developed a simple dip-stick test that uses monoclonal antibodies to detect the F1 antigen, a protein that is specific to the plague bacterium. The assay was field tested in Madagascar and detected low level of antigen with 100% specificity and sensitivity. (Lancet 2003;361:191–2)