



Research Update • Le point sur la recherche

In the news . . .

Time keeps on ticking, ticking

Research into circadian rhythms has mainly involved the brain. However, thanks to new techniques for imaging proteins in living cells, scientists have found that fruit flies have a time-keeping protein that regulates daily rhythms in tissues throughout the body (*Science* 1997;278[5343]:1632-5). In fact, individual cells can support their own independent clocks. Other research has shown evidence for these "tissue clocks" in higher animals, including mammals.

Eat fish, live longer

Eating fish at least once a week reduces the risk of sudden cardiac death, data from a prospective cohort study of 20 551

US male physicians indicate (*JAMA* 1998;279:23-8).

After age, use of ASA and ingestion of beta-carotene were controlled for, the risk of sudden death was cut in half for those who ate fish regularly in comparison with those who didn't. Eating fish also reduced the risk of death from all causes, but it had no effect on the risk of heart attack or death from cardiovascular disease that was not sudden.

Immune to HIV

The discovery of a man who is completely immune to HIV despite having frequent unprotected intercourse with a seropositive partner has led researchers to a genetic mu-

tation that appears to confer immunity (*Lancet* 1998;351:14-8). Resistance to HIV infection has previously been associated with a deletion on the chemokine receptor gene *CCR5*; the man studied had this mutation as well as a single point mutation, provisionally named m303, of the same gene. A study of the man's family showed that the m303 mutant allele was inherited as a single mendelian trait. The mutation was also found in 3 out of 209 healthy blood donors, indicating that it may be fairly common.

Vaccine for Ebola virus

US researchers have created a vaccine for the virulent, often-lethal Ebola virus (*Nature Med* 1998;4[1]). The vaccine, consisting of plasmids encoding viral proteins from the virus, was successfully tested in guinea pigs. Previous attempts to create a vaccine have failed.

Causal agent fingered for a form of MS

A large case-control study shows active infection with human herpesvirus-6 (HHV-6) in patients with the relapsing-remitting form of multiple sclerosis (MS) (*Nature Med* 1997;3[12]:1394). These patients had a higher HHV-6 antibody level than patients with chronic progressive MS, with other neurologic disease and with other autoimmune disease, as well as normal controls. HHV-6 DNA was also detected in serum samples from the patients with relapsing-remitting MS.

Viral cause of vasculitis?

There is growing interest in the possibility that viruses may con-

tribute to vascular pathology. Now a mouse model shows that a γ -herpesvirus can cause large-vessel arteritis (*Nature Med* 1997;12[3]:1346), suggesting that this group of viruses may be at work in human vasculitis.

Heart disease and *H. pylori*

The search for pathogens in heart disease has recently focused on *Helicobacter pylori*, the bacteria that cause peptic ulcers. However, a large, prospective study has shown no link between *H. pylori* infection and heart disease (*BMJ* 1997;315[7117]). From more than 20 000 men attending a medical clinic, 648 men who died from heart disease were compared with twice as many men who did not. There was no difference in the prevalence of *H. pylori* infection in the 2 groups.

More health benefits from breast-feeding

Children who are breast-fed exclusively during the first 15 weeks of life have half the rate of respiratory illness before age 7 as children who are partially breast-fed or bottle-fed, a study of 674 infants in Dundee, Scotland, has determined (*BMJ* 1998;316[7124]). Children fed solid food before 15 weeks had a greater risk of wheezing during childhood and a higher average percentage of body fat and higher body weight than other children. Systolic blood pressure was also found to be slightly higher in children who were bottle-fed than in those who were exclusively or partially breast-fed.

