ity, easy-to-use information, primarily through Web sites. However, for the Iway to do this people like Watanabe must ensure that its content is valid and up-to-date, and Canadians must become technology literate.

In Ottawa there is every sign that the government recognizes the urgency of the issues and the up-front costs for payers and providers. The federal government also knows that the Iway can have a significant impact on the promotion of health-information technology and at the same time on the federal role in health care. Last year's budget included several initiatives supporting information systems. A $50 million Canada Health Information system was announced, as was a $150 million Health Transition Fund and a $850 million Canada Innovation Foundation to support the infrastructure requirements of universities and research hospitals.

Several funding opportunities are available for researchers working on health information technology projects, including CANARIE's Technology and Application Development Competition. "We simply have to make intelligent connections," said Watanabe. — © *Charlotte Gray*

Research Update • Le point sur la recherche

In the news . . .

New hope in acute promyelocytic leukemia

Two different research teams have discovered that an enzyme plays a crucial role in acute promyelocytic leukemia (APL) and that inhibiting this enzyme could lead to new treatments for the disease (*Nature* 1998;391:811,815). The researchers worked from the knowledge that retinoic acid leads to remission in some cases of APL, but not in others. They found that there are 2 different mechanisms that cause APL, and that histone deacetylase determines whether APL develops and whether it responds to retinoic acid treatment. Inhibition of histone deacetylase affects the response to retinoic acid dramatically and could be the basis for new drug treatments.

Neurotoxicity in mice caused by tPA

The drug of choice for treatment of stroke may damage brain cells, an animal study conducted by scientists from the Harvard Medical School indicates (*Nature Med* 1998;4[2]). When injected into mice suffering an infarct, tissue plasminogen activator (tPA) produced larger infarcts, increasing the stroke-induced injury. Since tPA thus has desirable thrombolytic effects but undesirable neurotoxic effects, the researchers urge caution in its use.

Improving transplant matching

Despite best efforts to match bone marrow donors and recipients, graft-versus-host disease often develops after transplantation. Now researchers have discovered that a small genetic incompatibility may mean the difference between transplantation success and failure (*Science* 1998;279:1054-7). The minor histocompatibility antigen HA-1 is encoded by a gene that has 2 alleles. The allele type means a difference of 1 amino acid, which may cause incompatibility problems. Hence, allele typing should improve donor selection and determine the risk of graft-versus-host disease in recipients.

Ebola's double whammy

Researchers have found that the Ebola virus uses a 2-pronged approach to elude the body's defences (*Science* 1998;279:1034-7). Its glycoprotein is synthesized in 2 forms: a secreted and a transmembrane form. The secreted glycoprotein inhibits neutrophil activation, while the transmembrane glycoprotein binds to endothelial cells, which probably causes the hemorrhaging associated with the infection. New vaccines and treatments could target these glycoprotein forms.

Pros and cons of vena cava filters

Vena cava filters have been touted as a way to prevent pulmonary embolism in patients with proximal deep-vein thrombosis. However, a new study has found that their initial benefit in preventing embolism is offset by a risk of recurring deep-vein thrombosis (*N Engl J Med* 1998;338[7]:409-15). As well, death rates are similar in patients receiving the filters and those not receiving them.

An end to deviance?

A hormone treatment has proved successful in stopping deviant behaviour and fantasies in pedophiles and other sex offenders (*N Engl J Med* 1998;338[7]:416-22). Triptorelin, a long-acting agonist analog of gonadotropin-releasing hormone, reduces testosterone secretion. In the study, 30 men with long-standing deviant behaviour had no fantasies or incidents of deviance after 3 to 10 months of treatment, which was supported by psychotherapy.