

Cancer institute gives US breast-cancer policy the all-clear

Washington The United States is to continue its policy of recommending that women over 40 take regular mammograms to screen for breast cancer, the National Cancer Institute (NCI) announced last week.

The institute had been reconsidering the use of the technique in light of a review of the epidemiological evidence by researchers at the Nordic Cochrane Centre in Copenhagen, who questioned the benefits of screening last October (see *Lancet* 358, 1340–1342; 2001). The researchers said that screening is not beneficial if deaths from cancer interventions such as chemotherapy are taken into account.

A panel of independent experts assembled to advise the NCI acknowledged that there are uncertainties about the benefits of mammograms, but ruled that there is enough evidence to continue recommending their use.

British geologist rewarded for groundbreaking career

London This year's Crafoord Prize — a major award established to cover fields that are not represented by the Nobel prizes — has been awarded to Dan McKenzie, a geologist at the University of Cambridge, UK.

The Royal Swedish Academy of Sciences says that the US\$500,000 prize rewards McKenzie's contributions to the understanding of the dynamics of the lithosphere — the outer shell of the Earth — including plate tectonics, sedimentary basin formation and mantle melting.

McKenzie published several important papers in the late 1960s that helped to cement the idea of plate tectonics, the unifying — but at the time controversial — theory that explains the movements of continents and oceans. He went on to work on understanding and predicting earthquakes, and more recently helped NASA to analyse the surfaces and internal structures of Venus and Mars.

♦ www.kva.se

Web to reveal Pauling's methods and musings

Washington Digital versions of Linus Pauling's lab notebooks are to be released online on 28 February, the 101st anniversary of the double Nobel prizewinner's birth.

The 46 notebooks span the years between 1922 and 1994, and include details of the work that earned Pauling the 1954 Nobel Prize in Chemistry for his studies of the chemical bonds between atoms. Pauling campaigned against the development of nuclear weapons during the cold war, and in 1958 presented a petition to the United



Web of life: Linus Pauling's lab notes, which are to be published online, span a staggering 72 years.

Nations, signed by more than 9,000 scientists, that called for the end of nuclear testing. He was awarded the Nobel Peace Prize for this work in 1962.

The notebooks have been digitized by staff at Oregon State University, who say the records contain autobiographical musings as well as Pauling's experimental records.

♦ <http://osulibrary.orst.edu/specialcollections>

Physicists call time on historic pendulum problem

London Researchers in the US state of Georgia have chimed in with fresh insight on a 350-year-old observation of how two linked clocks behave.

Christiaan Huygens, the Dutch physicist who invented the pendulum clock, noticed in 1655 that the pendulums of two clocks contained within the same housing fell into step so that they swung towards and away from each other in unison. Physicists have studied many such coupled oscillators since, but Huygens' observations have not been satisfactorily explained until now, researchers at the Georgia Institute of Technology say.

The team, led by physicist Kurt Wiesenfeld, reconstructed Huygens' apparatus from his lab notes, and modelled the system mathematically. Each pendulum affects the other through their shared housing. With a low-mass housing, the interaction is too great and one clock stops. Heavier housings weaken the link between the clocks, allowing differences in their frequencies to prevent synchronization. Huygens' observation, the researchers conclude, was the serendipitous result of using a housing of just the right mass.

Grants aim to entice mums back to the lab

Munich The European Organization for Molecular Biology (EMBO) in Heidelberg, Germany, is offering fellowships to help re-integrate young scientists into research after having a baby.

The scheme, believed to be the first run

by a major research organization, is aimed in part at reducing the number of women who drop out of research. In 2001, a report by the European Commission found that up to 40% of female scientists leave the research system during the "leaky pipeline" between graduation and senior academic positions.

Eight two-year grants of 30,000 euros (US\$26,140) per year will be available as part of the EMBO plan. Until now, restart schemes have been restricted to a few funding organizations and universities in the United States, Britain and Switzerland.

♦ www.embo.org

Here's the catch — fishing could wreck Atlantic reefs

London Coral reefs in the northeast Atlantic Ocean are being irreparably damaged by unregulated deep-sea bottom trawling, marine researchers say.

Reefs in other parts of the world are endangered by rising ocean temperatures (see news story, page 947), but an examination of the coral structures off the coasts of Ireland, Scotland and Norway has found a different sort of damage: trawl scars up to 4 kilometres long in the 4,500-year-old reefs. In the most recent study, researchers from the United Kingdom, France and Norway found chunks of broken coral and associated sea life in the catches of trawler boats fishing off the west coast of Ireland (J. Hall-Spencer, V. Allain and J. Helge Fossa *Proc. R. Soc. Lond. B* 10.1098/rspb.2001.1910; 2002).

"We urgently need improved management of offshore areas to protect ancient deep-water habitats and the fish they support," says the report's lead author, Jason Hall-Spencer of the University of Glasgow.



Deep damage: the effect of bottom-trawl fishing on Atlantic corals (top) can be devastating (above).