



## Research Update • Le point sur la recherche

### Moles and melanoma

A case-control study of patients with melanoma has shown that the number, size and status of moles on a body indicate the risk of melanoma (*JAMA* 1997;277:1439-44). This means that physicians can easily identify high-risk patients to aid in screening and early detection of a cancer that is increasing in incidence faster than any other.

Case and control patients were examined to determine the number of moles, whether they were small (less than 5 mm), medium-sized (5 mm to less than 8 mm) or large (8 mm or more), and whether they were "abnormal" (flat or partly flat, medium-sized or larger, with variable pigmentation, irregular outline or indistinct borders).

Large numbers of small moles were associated with a twofold increase in risk, as was the presence of an abnormal mole. A large number of both small and large moles was associated with a fourfold increase in risk, and 10 or more abnormal moles were associated with a twelfold increase in risk.

Although moles have historically been associated with melanoma, this study is one of a few key pieces of evidence establishing a link.

At a briefing, investigator Dr. Wallace Clark Jr. of Harvard Medical School stated that all physicians responsible for patient examination "may now add the routine, careful examination of the entire skin as an additional pro-

cedure for cancer prevention and mortality control." — *C.J. Brown*

### Mosquitoes and malaria

What if you could replace malaria-carrying mosquitoes with mosquitoes that destroy malaria parasites in their bodies and do not pass them on? Biologists in Germany and the US are looking at strains of the *Anopheles gambiae* mosquito that block transmission of malaria to learn how and why they differ from *A. gambiae* mosquitoes that spread the disease.

In an article in *Science* (1997; 276:425-8), the researchers revealed that the unusual strains destroy invading parasites through an immune reaction called "melanotic encapsulation." When the parasites enter the mosquito, they are enclosed in a melanin-rich capsule. The researchers looked into the genetic makeup that produces this type of mosquito. They also discovered a second, different mechanism that can block the development of malaria parasites in mosquitoes. They speculate that future malaria-control strategies could be based on replacing mosquito populations with strains that destroy the malaria parasite. — *C.J. Brown*

### In the News

The latest data from the World Health Organization indicate that 1.1 billion people now smoke. WHO says 47% of men and 12% of women now light up regularly, and since 1950 the death toll for smoking-related causes has surpassed 60 million people. The country facing the bleakest future is probably China, where 300 million people currently smoke around 1900 cigarettes each per year.



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