This week in BMJ

All communications should be addressed to The Editor, *BMJ*

Editor
Stephen Lock

Art department
Derek Virtue

Book reviews
Ruth Holland

BMA affairs
Gordon Macpherson
Linda Beecham

Correspondence
Jane Smith

Editorials
Richard Smith

Editorial secretary
Meg Fogg

General office
Leslie Moore
Andrew Woodward

Information office
Ann Shannon

News
Stella Lowry

Obituaries
Liz Crossan

Original articles
Tony Delamothe
Tony Smith

Subediting department
Diana Blair-Fish
Sue Burkhart
Tony Camps Linney
Margaret Cooter
Sharon Davies

Publishing director
Anthony Smith

Advertisement manager
Bob Hayzen

International sales
Maurice Long

Publishing manager
Derek Parrott

US second class postage paid at Rahway, NJ. Postmaster: send address changes to: BMJ, c/o Mercury Airfreight International Ltd Inc, 2323 Randolph Avenue, Avenel, NJ 07001, USA.
US subscription $146.

Published by the proprietors, the British Medical Association, Tavistock Square, London WC1H 9JR, Telephone 01 387 4499, and printed by Pulman Web Offset Ltd. Typesetting by Bedford Typesetters Ltd, Bedford. Registered as a newspaper.

Langerhans' cells and subtypes of human papillomavirus in cervical intraepithelial neoplasia

An association between human papillomavirus and cancer of the cervix is now well established but what is less clear is whether the viral infection is a cause of cancer. One of the many factors associated with neoplastic change is systemic immunosuppression, and at p 643 Hawthorn *et al* report a study of the interaction between the virus and the host's immune system. They studied the relation between cells concerned with local immunosurveillance (Langerhans' cells) and the presence of particular human papillomavirus subtypes (types 16 and 18) commonly regarded as being associated with malignant change. The study controlled for other cofactors implicated in cervical neoplasia, such as smoking, multiple partners, and use of oral contraceptives. The results showed that the number Langerhans' cells present in biopsy specimens was inversely related to the amount of human papillomavirus types 16 and 18 present, and the authors suggest that this might explain the oncogenic potential of the viruses.

Melanoma from ultraviolet sources

Thoughts of summer include getting brown, and the cult of the sun is far from over. The desire to prepare for or maintain a healthy (so called) tan has led to the popularity of sunbeds, but there have been worrying reports that their use is accompanied by an increased risk of melanoma. Even ordinary fluorescent lights, which emit considerable short wavelength ultraviolet radiation, have been linked with melanoma. In an attempt to clarify all these possible risks Swerdlow *et al* (p 647) undertook a case-control investigation of 180 patients with primary malignant melanoma and 197 controls with non-malignant diseases, all living in Scotland where natural exposure to ultraviolet radiation is fairly low. They found that exposure to fluorescent lights, at home or at work, was not related to the development of melanoma. By contrast, as many as 38 of the patients (21%) had used sunbeds or ultraviolet lamps compared with only 10 (8%) of controls, and the risk of getting a tumour increased with the duration of exposure to sunbeds. These findings have worrying implications for both the leisure and therapeutic uses of ultraviolet radiation.

Entamoeba histolytica in homosexual men

Homosexual men commonly have intestinal infection with *Entamoeba histolytica*, but they rarely develop invasive amoebiasis. Whether or not these asymptomatic infections with *E histolytica* require treatment has long been a cause of controversy. The debate has intensified with the increasing prevalence of infection with human immunodeficiency virus (HIV) among homosexual men.

On p 654 Allason-Jones *et al* describe a study of 55 homosexual men infected with *E histolytica*. No clinical, histological, or serological evidence of invasive amoebiasis could be found, and so no treatment was given. All the isolates of *E histolytica* belonged to non-pathogenic zymodemes. Invasive amoebiasis did not develop in any of the men, including those who were positive for antibody to HIV and even those who developed AIDS. Several of the men developed gastrointestinal symptoms during the course of the study, but these could not be attributed to amoebiasis. The authors conclude that routine treatment of *E histolytica* infections in homosexual men is not required and that the organism should not be assumed to be the cause of any gastrointestinal symptoms.

How effective is mammography?

Since the report of the Forrest working group in 1986 routine screening for breast cancer by mammography has been recommended at intervals of three years between 50 and 65 years of age because of benefits shown in detection programmes in America and Sweden. From the results of these studies Forrest determined that each life year saved by screening would cost about £3000 in the United Kingdom, but did not estimate the likely reduction in mortality from breast cancer as a result of the programme or the cost for each life saved. On p 650 Professor Knox addresses these questions in a reanalysis of the Swedish and American data, using an analytical model that allows the stage of the cancer to be broadly identified (curable/incurable) and enables allowances to be made for variation in clinical course with age and for alterations in sensitivity of detection and efficacy of treatment during the screening period. These new analyses show a lower cost than previously calculated for each life year saved (about £2600) and also show a probable saving of about 900 deaths in England and Wales a year, or about 8% of total deaths from breast cancer. The cost for each death saved works out at around £39 000. These findings not only confirm the likely value of such a screening programme but also have implications for how the service might be monitored.

Smoking and leukaemia

The associations of smoking with cancers of the lung, mouth, larynx, bladder and kidney, and cervix are all well known. A link between smoking and leukaemia has been suggested in the past, and at p 657 Kinlen and Rogot report the largest and most detailed study yet of leukaemia and smoking habits. This showed a clear positive relation with a 50% increased mortality among cigarette smokers. The data also show the most convincing evidence to date of a dose-response effect with amount smoked. Even if the effect is indirect, the findings are relevant to the interpretation of minor increases of leukaemia in both population based and individual based studies. If the relation is causal then smoking is a more important cause of leukaemia in adults than all other known causes combined.