ing nucleic acid sequences were explicit, but impossible to assimilate instantly and had a complexity similar to that of the London Underground maps. The lecturers confirmed my ignorance by claiming (I presume correctly) 'as you can see there are several interesting sequences of major significance' (I looked in vain) or 'comparison of this (to me totally incomprehensible) slide with the previous one (equally incomprehensible) confirms dyshomogenicity of T cell epitope alleles in Italian type 2 hepatitis C' or 'EBV strains in PNG have mutations stopping binding of peptide to HLA-A11' (it turned out that PNG was not polynucleic granules but Papua New Guinea).

My increasing depression was only reduced by the realisation that the speakers would probably not be able to differentiate clinically between gallstones and hepatitis as a cause of jaundice. Nevertheless my intracranial computer kept on flashing up "SYSTEM OVERLOAD, PLEASE REBOOT AND GO FOR A CUP OF TEA'. I rebooted but depression returned after tea when I overheard a (molecular person) remark how clear the lectures had been.

On return to my normal duties my colleagues asked what I had learnt from the meeting. My reply? 'As the result of recent research my confusion is greater than ever. Molecular medicine is like magic. Only wizards can understand it'.

P. D. WELSBY

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COLLEGE LITERATURE

The History of a Genetic Disease, Duchenne Muscular Dystrophy by A. E. H. Emery and M. L. H. Emery (Royal Society of Medicine Press, 1995). This is a scholarly book with 378 references covering the years 1830 to 1995. It is also an immediately attractive book because of the 64 pictures of the men who have elucidated the nature of the disease and of some of their patients. Naturally all the patients are male, but there are two pictures of ladies, one a charming portrait of a molecular biologist born in 1951, the other of one of the authors on her hands and knees in a London cemetery tending the grave of a physician who had died in 1880. The first half of the text, 146 pages covering the years 1830–1950, is an account of the gradual establishment of the disease as a distinct clinical entity, its hereditary nature and the differential diagnosis. All physicians can enjoy reading this and can appreciate the clinical skills of their forefathers. The second half, on the molecular biology leading up to the possibility of effective prevention, is often tough going and best suited to a young physician contemplating entering the field of medical genetics.

R.P.

Letters to the Editor

LANGUAGE, THE TOOL OF THOUGHT

Sir, May I comment on your Editorial on *Language, the Tool of Thought* (*Proc. R. Coll. Physicians Edinb.* 1994; **24:** 477–479)?

None would dare question the significance of the contributions made by Johannes Gutenberg and William Caxton to the use of language, your 'tool of thought', or of Guilielmo Marconi to 'wireless' channels of communication. But it is only now that we are beginning to realise that a linguistic revolution of even greater importance is taking place before our eyes, uninvited, poorly understood and not always welcome. I refer to the insidious and growing influence of the personal computer and to the awesome power of William Gates, founder of Microsoft, the richest man in the United States of America and the inventor of *MS-DOS* and of *Windows*.

In Western hospitals, every physician and surgeon is already compelled to take account of the impact of computers on the practice of medicine (CT scanning and MR imaging), on office procedures (word-processing), on medical records (Read; SNOMED), on medical publishing (textbooks and journals) and on teaching (video-conferences; multimedia). Microscopic sections can be reviewed by pathologists who are hundreds of miles apart; they select, adjust and survey a shared video image while debating a histological diagnosis.

In a comparable manner, every British University has access to a *Joint Academic Network* (Janet) and to her young sister, Super Janet. The Universities are linking staff offices by telephone line so that teachers and research workers, already communicating internationally and on an hourly basis by facsimile machines, can 'write' to each other by electronic mail (e-mail). Within and outside the Universities, any individual can subscribe to the Internet, allowing free entry to stores of information held in archives such as the World-Wide Web. It must be only a matter of time before the Royal Colleges are linked in the same way.

At present, a 'generation gap' determines that many practising doctors have left school without learning to use personal computers. This educational 'black hole' will soon disappear. In the University of Edinburgh, the Faculty of Medicine has established a 'laboratory' with 90 computers for the use of undergraduates. It is ironic that the site should be that of the 1962 Medical Reading Room. Soon, all communication between Faculty and students will be by electronic mail (e-mail), not on paper. Students already 'write' to each other in this medium and almost all essays are composed on a word processor. Sadly, to the consternation of the elderly, the use of the pen is declining. The conclusion is inescapable: by the Millennium, doctors who do not understand and use personal computers will not be professionally ignorant but in a sense they will be illiterate and it will be difficult for them to communicate with their younger colleagues.

The day-to-day use of personal computers has yielded immense benefit. However, the new skills have created great problems for those charged with preserving the integrity of language. The task of modernising dictionaries and encyclopaedias is now easier than it has ever been but the linguistic price paid for

this progress has been very great. We are beset by neologisms. The new words appear to be chimaeras, ill-conceived crosses between slang and gibberish. May I give an example? I am 'keying-in' this letter on a 486 66 MHz platform, using the program *Words for Windows* vs 3.1. I accessed this program by keyboard and mouse and I shall save the data to 230 MB hard disc as well as to floppy, outputting a hard copy by a user-friendly 400 OKI printer.

Almost every word of this jargon* is now the common usage of our schoolchildren and students. At the age of 9 or 10 years, many are technical masters of the computer-game keyboard. We ourselves cannot use personal computers without comprehending the jargon. Without the computer, we remain isolated and appear ignorant and old-fashioned. Insidiously, therefore, we begin to use the new language in daily conversation and in writing. Just as politicians 'take on board' and 'address' every 'clear' question that confronts them in Parliament, so every physician will soon 'access' his or her records on a personal 'office' PC before 'saving' a diagnosis and sending a 'hard copy' of the report to the general practitioner by 'facsimile' or 'e-mail'. He or she will keep the practice accounts on a computer spreadsheet and reply to pharmaceutical company questionnaires by e-mail.

The advantages of personal computers and of computer literacy are so great that none of us would be foolish enough to challenge their use and rapid development. Those who decry the application of computers in medicine and surgery are 'dinosaurs'. Nevertheless, it is of the greatest importance to consider some of the implications of this twentieth century revolution.

Contemporary personal computers contain a dictionary which allows an incorrectly spelt document to be quickly checked and amended. Since the machines are made largely by American and Japanese companies, the dictionaries are of the American/Japanese, not of the English language. Increasingly, publishers accept esophagus for oesophagus, sterilization for sterilisation and roentgenogram for X-ray; for financial reasons they cannot do otherwise. The most sophisticated machines employ 'Intellisense', so that the machine 'learns' the users accustomed style, perpetuating it together with all the writer's misconceptions and errors.

At small cost, physicians and surgeons can retrieve any selected part of the huge and growing volume of written information contained in the computers or 'data banks' that serve the Internet. No student need despair of preparing an interesting essay within the hour, nor need any physician lack an informed comment on an obscure topic to be presented at an ethical committee or research board. In a few seconds, some of the best opinions (and illustrations) can be recalled, to be incorporated into apparently original papers or reports. The same information can be switched at a moment's notice between the physician's own publications, allowing chapters for two separate textbooks to be 'written' with a minimum expenditure of effort. References, once incorporated into a computer file, no longer have to be checked and re-drafted; mistakes and misspellings are irresistably perpetuated. Uncorrected, Shwartzmann will remain Schwartzman, fetus will stay foetus.

For editors and publishers, even greater problems are foretold. Texts, papers, letters and reports of the greatest importance are increasingly available on compact disks (CDs), devices that store huge volumes of information. At present, these disks can be read but not 'written to'. Within a year or so, the cost of the machines needed to 'write' to CDs will fall to a level permitting individual physicians to have this apparatus in their own homes. When this happens, it may no longer be necessary for the user to buy a journal or book: these publications will be 'accessed' via Internet, downloaded to the user's own personal computer and used without restraint.† Last year, the professor of English Literature at Harvard University remarked that only half his students still read 'books'. This revolution in reading is beginning to influence Medicine. Publications such as the Oxford Textbooks are now sold on CD. It is only a further, short step to place them on the Internet. If a new *Scottish Journal of Medical Sciences* were to be made available in the same way, would anybody buy the printed version? Are books and journals obsolete?

*Jargon: talk that is both ugly sounding and difficult to understand.

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SKIN MANIFESTATIONS IN AIDS

Sir, We enjoyed Richard Staughton's comprehensive review of this subject (*Proceedings* 1995; **25:** 40–4) and our experience in the Western Region of Saudi Arabia supports his emphasis of the atypicality of presentation in the indigenous and the expatriate population here. We have been jolted into awareness of how innocuous the presentation may be or how it may present in association with other conditions in a venereal disease (VD) department when one is not expecting it. In particular, early Kaposi's sarcoma may be clinically undiagnosable. On one occasion we eventually removed persisting low grade 'furuncle' in a HIV positive subject to find that it was sarcoma. On another occasion a typical chancroid presented in a patient with no other symptoms, but his HIV test was positive. Our policy is to consider any atypical dermatological or venereological presentation as possibly due to HIV infection and investigate accordingly. All VD cases and all atypical skin presentations are tested for HIV 1 and 2.

When Dr Staughton stated that the dermatologist can play a valuable role in diagnosing AIDS and he stressed the importance of biopsy and histology, we remembered that HIV testing is not routinely carried out by our colleagues in the UK. This is ludicrous. It means the physician or surgeon is fighting with one hand tied behind his back and possibly being placed at risk. It is surely better for both patient and doctor to be aware of what disease exists. In AIDS there is the risk to others who may acquire the disease because the person affected wishes to conceal his condition or is unaware of it. Not carrying out HIV tests where good medicine requires it is political chicanery and panders to the unenlightened. If the HIV test is needed to establish a diagnosis it should be carried out. This is the rule in Saudi Arabia and we think it is effective.

All expatriate staff in Saudi Arabia are HIV tested and it does not appear to

†Computer scientists are devising methods of allowing only agreed transactions on the Internet, with 'firewalls' to prevent unauthorised access. However, 'hackers' continue to devise new ways of penetrating these defences, allowing the transmission and alteration of computer data with the greatest of ease. Will the word 'copyright' itself become obsolete?

act as a deterrent to seeking work here. The devil one knows is better. We may practice in a desert country but we don't choose to bury our heads in the sand.

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MEDICAL SYSTEMS: EXCHANGE OF VIEWS

Sir, I was honoured to receive a grant from the Myre Sim Bequest Fund to visit the Royal Hospital for Sick Children NHS Trust and the Western General Hospital NHS Trust both in Edinburgh, and the Royal Hospital for Sick Children NHS Trust and the Institute of Neurological Sciences/Southern General Hospital NHS Trust both in Glasgow from 16–24 May 1994. The objectives of my visit were to exchange ideas about approaches to the management of some paediatric neurological problems and Canadian and British approaches to medical audit and 'medical audit committees'. I found a great deal in common. The Medicare system in Canada was based on the NHS in the UK. Both systems are being tested by political, fiscal and societal challenges as we attempt to meet the health care needs of those we serve. In neither country do the key players want to sacrifice the principle of free and 'universal access'. I found that the hospitals within both systems are meeting the challenges by incorporating methods of quality improvement. The NHS, through booklets and documents on 'medical audit', has played a leadership role in many areas of 'clinical audit' and has recognised the importance of multi-disciplinary 'audit committees'. I was able to borrow several ideas from my British colleagues and have presented them to the management groups at the Health Sciences Centre, Winnipeg.

I would like to make two suggestions: (1) that the Royal College of Physicians of Edinburgh continue to publish articles dealing with quality improvement approaches in health care and with issues pertinent to 'medical audit' and (2) that given the common ground between Canada and the UK visits, like the one I made, promoting contact between hospital physicians and administrators in Edinburgh and those in Winnipeg should be facilitated by the College. We can learn a great deal from each other. A twin sister relationship between like-minded hospitals could further enhance such exchanges. There is merit also in fostering links at other levels such as between the Royal College of Physicians of Edinburgh and the Royal College of Physicians and Surgeons of Canada and the Canadian Medical Association.

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SEXUALLY TRANSMITTED DISEASE IN AFRICA

Sir, Duncan E. and Tibaux G. (*Proceedings* 1995; **25:** 240–50) rightly describe Sexually Transmitted Disease as the Cinderella of Tropical Medicine. At the Annual Meeting of the British Medical Association held in Cambridge in 1948, I requested, as the representative of the Kenya Branch, that support should be given for a Royal Commission to visit Kenya to consider the probable effects of the increasing population. The Branch feared that it might lead to hunger which

'not all the groundnuts in Tanganyika would be able to satisfy'. I added that 'the spread of venereal disease and tuberculosis might check the increase but would seem to be strange therapeutic agents on which to rely'. A small Royal Commission was subsequently sent to Kenya but its recommendations were ineffective and the groundnuts scheme a costly failure. Gebre N. *et al, (Trans R Soc Trop Med and Hyg* 1995; **89:** 191–3) state that 'the number of patients infected with both HIV and tuberculosis is estimated to be 3·8 million and most of these patients are found in sub-Saharan Africa'. What will the next 50 years bring?

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PRESIDENT'S PORTRAIT

This portrait of the former President, Dr Anthony Toft, was unveiled at a reception of subscribers on 4 April 1995. The artist, Alexander Fraser, is a senior Lecturer at Gray's School of Art, Aberdeen.

The artist explained that he wished to leave it to Fellows and Members to interpret the allegorical background as they each thought most appropriate. However, when he had first visited the College Dr Toft had pointed out to him the representations of cockerels and of the Centaur in the decorations and on the furnishings and had explained their significance. The figure on the extreme left was the artist himself as he thought Dr Toft will have observed him while he was painting the portrait. The significance of the cloaked figure was for others to decide. The cat was a frequent visitor to his studio and in spite of Dr Toft's known aversion to cats he had decided to 'let sleeping cats lie', possible a sign of the past President's ability to remain calm when faced with irritation. The far distance had previously been represented as mountains but was repainted to represent the dreich weather that typified Scotland. The artist apologised to Maureen Toft for painting her in drab colours which he guessed she never wore—an artistic license necessary to maintain the harmony of the painting. Finally, the artist thanked the College for giving him the opportunity to paint such a challenging work. When the portrait was unveiled the larger gathering at the reception were clearly delighted. The break with the tradition of a formal portrait, the President being presented as the centre of an interesting group of figures that held the eye, was greatly appreciated. Mr Fraser was warmly congratulated for his ideas and for his vivid execution of them.

A colour photograph of the painting is available from Mrs S. Simpson, Royal College of Physicians, 9 Queen Street, Edinburgh EH2 1JQ for £1.50 plus 50p postage and packing (UK) and £1.00 (Overseas).