In brief

NHS appoints nurse

consultants: Over 140 new nurse consultant posts will be established in England, selected from over 300 submissions. They will earn from £27 460 (\$43 930) to £42 010 a year and spend at least half of their time working directly with patients. They will also be responsible for developing professional practice.

WHO's push to eradicate polio:

The World Health Organisation and Unicef have written to the 30 heads of state in sub-Saharan Africa and south Asia, where the transmission of poliovirus remains intense, asking them to support the drive to eliminate poliomyelitis by the end of 2000.

Vitamin E may not prevent

cardiovascular disease: A new study casts doubt on claims that vitamin E supplements can ward off cardiovascular disease. In the trial, 4761 patients with heart disease were given a daily dose of 400 IU of vitamin E over four years; a placebo was given to a control group. There was virtually no difference in the number of heart attacks or strokes in the two groups (*N Engl J Med* 2000;342:154-60).

Measles virus does not cause

Crohn's disease: According to research published in *Gut* (2000;46:163-9) no evidence exists that the measles virus causes Crohn's disease. The measles, mumps, and rubella vaccine contains live, although weakened, measles virus, particles of which have been found in the intestines of patients with Crohn's disease.

NHS patients to receive digital

hearing aids: The Department of Health in England has launched a pilot project at 20 sites to make digital hearing aids available. The NHS Executive has worked with the Royal National Institute for Deaf People and the Medical Research Council Institute of Hearing Research.

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Scientists discover how helicobacter survives gastric acid

Abi Berger *BMJ*

The puzzle of how *Helicobacter pylori* manages to live happily in the hostile acidic environment of the stomach has been solved. Scientists at the University of California in Los Angeles, have discovered that *H pylori* has a unique, acid gated membrane channel, which effectively controls the amount of alkali pro-

H pylori: how can it survive stomach acid?

duced by the bacterium to combat gastric acid, allowing it to survive and grow in gastric acid.

They have also identified the gene that encodes for the channel. George Sachs, professor of medicine and physiology at the university, and his colleagues believe that this gene provides a new therapeutic target that will be useful in eradicating *H pylori*, thereby reducing the incidence of gastritis, ulcers, and some stomach cancers.

H pylori is unique in its ability to thrive in the human stomach. It does this by activating its own cytoplasmic urease, which converts urea into carbon dioxide and ammonia. The ammonia first neutralises the gastric acid that enters the outer membrane of the bacteria, preventing acidification at the inner membrane. This allows the bacteria to colonise the stomach.

Professor Sachs's team, which worked in collaboration with a

team from Germany headed by Dr Klaus Melchers, head of antimicrobial research at Byk Gulden, a private company, has discovered that the channel across the cell membrane that is responsible for allowing the passage of urea into the cytoplasm of the bacteria is regulated by a protein called UreI, a member of the amidoporphin family of proteins (*Science* 2000;287:482-5).

When acid is present, the membrane channel increases the amount of urea entering the bacterial cytoplasm 300-fold. This in turn results in the production of sufficient ammonia to neutralise the periplasm (the area between the inner and outer layers of the bacterial cell membrane).

This helps the bacteria resist acidic conditions. When UreI is not present, insufficient urea enters and less ammonia is generated. Without the ability to neutralise its own periplasm, the *H pylori* bacteria become fatally vulnerable to the acid usually found in the stomach.

"If we can find a way to inhibit UreI, then a new approach to *H pylori* eradication will become possible," said Professor Sachs. □

University sues scientist for £400 000 for undeclared fees

Clare Dyer *legal correspondent, BMJ*

Simon Fishel, one of Britain's leading infertility experts, is being sued for £400 000 (\$640 000) by his former employers, Nottingham University, which alleges that he earned substantial "secret profits" from treating private patients abroad using university staff and facilities.

The case, in its second week of trial in the High Court in London, has implications for academic staff who top up their salaries by doing private work.

Legal costs are thought to have reached £500 000 before the case reached trial, and Dr Fishel, who has taken out a second mortgage on his home to fund his defence, faces financial ruin if he loses.

The university claims that Dr Fishel, aged 47, an embryologist

with an international reputation who is not medically qualified, breached his employment contract and induced other staff to break theirs.

The dispute blew up after Dr Fishel left the university, where he was reader in embryology and scientific director of Nottingham University Research and Treatment Unit in Reproduction (Nurture), in 1997 to set up the Care clinic at Nottingham's private BMI Park Hospital.

At the start of the trial, the judge, Mr Justice Elias, asked if there was any chance that the dispute might be resolved by mediation "so that it doesn't have to be fought out in public over a number of weeks."

Timothy Dutton QC, for the university, said that attempts had been made to reach a compromise in the case without success. Mr Dutton said that Dr Fishel ran infertility clinics abroad that brought in fees from patients of up to £10 000 in two or three days. None of it went to the university.

He was the highest paid academic at the university at the time of his departure, with a

salary of £138 000 in 1996. But despite this, he charged patients for treatment given during his visits to foreign clinics and kept the money for himself and to pay the Nurture staff who accompanied him, Mr Dutton added.

He continued: "Dr Fishel was bound to declare, fully and frankly, the profits he was going to make from his activities abroad in order to obtain informed consent from the university. But he did not do that." He used the Nurture name and the university's employees, secretarial facilities, fax machine, computers, paper and equipment, said Mr Dutton.

Dr Fishel, who worked in Italy, South Africa, and the Far East, strongly contests the claim and argues that all the work done abroad by him and his assistants was carried out with the university's knowledge and encouragement and that the university had had no objection to their keeping fees earned abroad.

The trial is scheduled to finish next week, and judgment is expected to be reserved to a later date. □