- 3 Stone JM, Cruickshank DG, Sandeman TF, Matthews JP. Trebling the incidence of testicular cancer in Victoria, Australia. *Cancer* 1991;68:211-9.
- 4 Henderson BE, Benton B, Jeng J, Ya MC, Pike MC. Risk factors for cancer of testis in young men. *Int J Cancer* 1979;23:598-602.
- 5 Swerdlow AJ, Huttly SRA, Smith PG. Testicular cancer and antecedent diseases. *Br J Cancer* 1987;55:97-103.
- 6 Stone JM, Cruickshank DG, Sandeman TF, Matthews JP. Laterality, maldevelopment, trauma and other clinical factors in epidemiology of cancer of testis. *Br J Cancer* 1991;64:132-8.
- 7 Office of Population Censuses and Surveys. *Hospital inpatient enquiry, England and Wales 1979-85*. London: HMSO, 1989.
- 8 Thornhill JA, Butler M, Fitzpatrick JM. Could vasectomy accelerate testicular cancer? Importance of pre-vasectomy examination. *Br J Urol* 1987;59:367.
- 9 Cale ARJ, Farouk M, Wallace IWJ, Prescott RJ. Does vasectomy accelerate testicular tumour? Importance of testicular examination before and after vasectomy. *BMJ* 1990;300:370.
- 10 Moss AR, Osmond D, Bacchetti P, Torti FM, Gorgin V. Hormonal risk factors in testicular cancer: case control study. *Am J Epidemiol* 1986;124:39-52.
- 11 Strader CH, Weiss NS, Daling JR. Vasectomy and incidence of testicular cancer. *Am J Epidemiol* 1988;128:56-63.
- 12 Neinhuis H, Goldacre M, Seagroatt V, Gill L, Vessey M. Incidence of disease after vasectomy: record linkage retrospective cohort study. *BMJ* 1992;304:743-6.

Hype from journalists and scientists

An unholy alliance

Journalists know that Monday's newspapers are traditionally devoted to undoing the excesses of Sunday's papers. Most doctors yawn when they read of "miracle breakthroughs" in Sunday's papers and know that the whole thing will be forgotten by Tuesday. But for parents it's different. Imagine that you are the parent of a child severely affected by asthma, whose life is restricted by her condition and who you know has a chance of dying of her disease. How then would you feel when you opened the *Sunday Times* of 8 March and read that the disease will be eradicated within five years?¹

You are likely to feel elated, but eventually you will be brutally let down. You may be suspicious that your general practitioner is out of touch with new developments when she tells you that she is sceptical about the breakthrough. And you are unlikely to read page 12 of the *New Scientist*, where one of the researchers quoted in the *Sunday Times* says that the news reports were "totally over the top."² But in the end you will discover that the whole article was the most appalling piece of hype. Then you will be distraught and feel cheated.

Why should we bother to draw attention to these excesses, which have long been with us? There are two reasons: firstly, the *Sunday Times* in particular seems to be making a habit of these reports; and, secondly, some highly respected scientists seem unwittingly to be participating in the process, to the detriment of science.

The *Sunday Times* article of 8 March appeared on the front page and was entitled "British breakthrough likely to end asthma suffering." Scientists were said to have discovered the gene that caused asthma, and the discovery had, the paper said, "been hailed as one of the most significant medical breakthroughs this century." An article on 29 December employed similar hyperbole about the use of acyclovir in AIDS: "British doctors have discovered a drug that halves the death rate of patients with the AIDS virus and promises to make the disease completely treatable."³ Professor Paul Griffiths, a professor of virology and one of the principal investigators, was quoted as saying that "the drug had removed the automatic death sentence carried by HIV. He claimed the infection could be as treatable as diabetes by the end of the decade."

The effect that these sorts of statements have on those suffering from AIDS is hard to quantify, but the effect on

markets can be easily measured: the share price of Wellcome, the manufacturers of acyclovir, rose by a pound the day after the *Sunday Times* report, although Wellcome poured cold water on the claims.⁴ Professor Griffiths later wrote in the *Lancet* that he was embarrassed by the report and that he did not anticipate that "minor points in the briefing... would become major points of discussion."⁵ But he should have anticipated this and no doubt will next time. Similarly, doctors will become even more sceptical than usual of reports in the *Sunday Times*.

But the *Sunday Times* is not entirely to blame. All sorts of people want to get their messages out through the newspapers for all sorts of reasons, and they may not be as careful as they should be. Sir Walter Bodmer, the author of a Royal Society report on the public understanding of science, is reported by the *Sunday Times* as describing the discovery as "precisely the sort of 'holy grail' thousands of scientists throughout the world have pursued since gene mapping of the body became possible about five years ago." The article suggests that you find the gene, identify its product, tailor a drug to block its action, and "hey presto" asthma is eradicated. "It means," said Dr Bridget Ogilvie, director of the Wellcome Trust, which funded the work, "we can get to the most basic level of why you get a disease and create designer drugs that will alter your susceptibility rather than simply tackling the symptoms."

Sir Walter and Dr Ogilvie both want to raise the profile of medical research and help find more funds for what they regard as vital research, but they do nothing for the public understanding of science by making statements that can be used to endorse the suggestion that the eradication of genetic disease is something not much more complicated than Lego. And they raise among patients expectations of cures that they will probably not be able to deliver into routine medical practice for decades.

RICHARD SMITH

Editor, *BMJ*

- 1 Ballantyne A. British breakthrough likely to end asthma suffering. *Sunday Times* 1992;8 March:1,3.
- 2 Anonymous. Asthma reports raise false hopes. *New Scientist* 1992;14 March:12.
- 3 Ballantyne A. AIDS death rate halved by new drug. *Sunday Times* 1991;29 December:1,3.
- 4 Anonymous. Acyclovir news premature? *Pharmaceutical Journal* 1992;4 Jan:10.
- 5 Griffiths PD. Publicity and unpublished results. *Lancet* 1992;339:557.