

force as always. INBio's mission is to promote greater awareness of the value of biodiversity and thereby achieve conservation and improve the quality of life for society. Sustainable biodiversity development of five conservation areas guides the institution toward this mission and strengthens biodiversity conservation in Costa Rica. We hope that the international scientific community will continue to enthusiastically support this mutually beneficial initiative.

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Whitehall Arcana

The little ScienceScope piece, ironically shaded Tory blue, entitled "Labour names a science minister" (9 May, p. 887) says that Margaret Beckett, the President of the Board of Trade, "raised hopes that science might be given high priority when she announced that she would have 'special responsibility' for science and technology." The previous paragraph refers to "a decision 2 years ago that placed the science minister at a junior level within the Department of Trade and Industry." The reality is significantly different, and a bit more complicated.

The U.K. Office of Science and Technology (OST) was originally created in the Cabinet Office in 1992, but it never was stand alone. It was grafted onto the Office of Public Services, whose Cabinet Minister rejoices in the rather Alice in Wonderlandish title "Chancellor of the Duchy of Lancaster." William Waldegrave, who is often referred to as "the first Science Minister," was indeed the Cabinet Minister who spoke for science, across all departments, in Cabinet; he did this as the Chancellor of the Duchy of Lancaster, and his responsibilities embraced both this science role and the oversight of all aspects of public service. He never was simply a Minister for science. And he always

had a junior Minister (not a Cabinet Minister), who assisted him with his science responsibilities. Both William Waldegrave and his successor as Chancellor of the Duchy of Lancaster, David Hunt, took considerable interest in science, and successive junior Ministers had correspondingly low profiles.

In the summer of 1995, the OST was moved into the Department of Trade and Industry (DTI). Thereupon the President of the Board of Trade, Ian Lang, assumed a role in Cabinet similar to that previously held by Waldegrave and Hunt. Lang added to his role as Head of DTI the additional responsibility of speaking in Cabinet for all matters having to do with research and development, across all departments. That is, he was similar to the previous Chancellor of the Duchy of Lancaster in wearing two hats, although different in that DTI was a bigger job than was the Chancellor of the Duchy of Lancaster, so that the broad trans-departmental science role was correspondingly a smaller part of his job.

With the transfer of OST into DTI, there was, as there had been before, a junior Minister responsible for science and technology. Ian Taylor, however, had much greater visibility and played a role that really did engage the science community. But the structure remained unchanged in principle from



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1992 onward, the difference since 1995 being in the detail that science is a smaller part of a larger portfolio in the Cabinet Minister with responsibility for it, and a junior Minister is correspondingly more important.

Finally, and getting into real Whitehall arcana, Ian Taylor was a junior junior Minister (Parliamentary Under Secretary of State), while John Battle is a senior junior Minister (Minister of State).

Obviously much of this is too detailed for the short piece that appeared. But it simply is wrong to suggest that Mrs. Beckett will be doing something new in speaking for science, across all departments, in Cabinet. At the same time, it is great that she looks forward to this important role.

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Drug Development

Silvio Garattini asserts in his 17 January editorial "Financial interests constrain drug development" (p. 287) that the pharmaceutical industry "is interested in treating the largest possible number of patients with a particular drug." This is untrue. We commit to improving the health of as many patients as possible with a particular drug. This goal necessitates treating a number of sick people with a particular drug even though some do not respond, because the technology to identify responders is a priori not available.

This may change soon as the ability to stratify phenotypes (historically a somewhat imprecise science) is enhanced by genotyping (a highly quantitative and exact science). To advance this goal, we and other pharmaceutical companies are conducting clinical trials to correlate the response to various developmental drugs not only with a patient's phenotype (such as blood pressure) but also with his or her genotype.

Garattini cites the problem of drug resistance and argues that the development of drugs to decrease resistance "is constrained by those drugs' potentially limited market." Pfizer has large programs committed to study bacterial and fungal mechanisms of resistance, and we have recently invested several million dollars with biotechnology companies such as Microcide and Chemgenics to expedite this research. Glaxo Wellcome, in concert with its affiliate Afymetrix, is analyzing viral DNA from patients infected with human immunodeficiency virus to determine which viral genotypes are sensitive or resistant to existing AIDS therapies. This expensive, long-term

investment will help physicians select appropriate drugs and may also elucidate mechanisms of viral resistance.

Garattini asks for "[s]pecial collaborative programs linking industry, governments, and academic or scientific institutions." The funding by the U.S. National Institutes of Health of Johns Hopkins University's genotyping center will make this information available to the whole industry and also facilitate the understanding of genetic differences between phenotypically similar disease sites.

Ian Williams

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Response: Williams defends the position of the pharmaceutical industry, which I did not intend to attack in my editorial. I simply tried to explain that many orphan areas in medicine cannot be taken care of by industry although these areas are of great importance for patients and national health services. I certainly know of and appreciate the activity of the U.S. National Institutes of Health and Johns Hopkins University, but my aim was to suggest extension of such activity in Europe and through an ad hoc agency.

Silvio Garattini

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Endosomal Targeting and the Cytoplasmic Tail of Membrane Immunoglobulin: Retraction

In our report (1) "Endosomal targeting by the cytoplasmic tail of membrane immunoglobulin" (18 Apr., p. 407), we measured the production of interleukin-2 (IL-2) with an MTT assay (2). Recently, we repeated our experiments with another assay for measuring the production of IL-2, namely, thymidine incorporation in the cytotoxic T lymphocyte cell line CTLL-2. In this system, differences between results from positive and negative control are severalfold higher than they are with the MTT assay. This reexamination, together with the analysis of additional clones, revealed problems with the sensitivity and calibration of our MTT readout that jeopardize the conclusions of our study (1), because the different transfectants no longer fell into the clear pattern presented in our report. Although the $\gamma 2m$ cytoplasmic tail of membrane-bound immunoglobulin may have a role in antigen presentation, our data do not allow us at this stage to establish this role.