

"They are actually using a lot of our exhibits and no doubt will develop and improve them because they've got more facilities. From the point of view of Bristol ... I think actually there may be a gain."

Just as the Exploratory set new standards when it opened, so Explore at Bristol is striving to set new standards for the next century. We hope readers will come and see for themselves when we open — on time, and on budget — next spring.

Gillian Thomas

Chief Executive, at-Bristol, Deanery Road, Harbourside, Bristol BS1 5DB, UK

McCabe replies — My article correctly reports the relationship between Explore and the Exploratory. But, as chief executive of at-Bristol, Gillian Thomas naturally does not agree with the criticisms I reported of Explore's approach to science.

Although Thomas says that Explore is carrying on the tradition of the Exploratory, many scientists involved in planning the new centre believe that the scientific content of Explore is thin. Thomas and her colleagues pointed out to me examples such as brains you can touch, crickets you can look at through a magnifying glass, and a virtual-reality sperm ride. Although these are hands-on in a literal sense, they do not oblige visitors to run through a mini-experiment to observe a scientific principle.

The scientists I spoke to embrace the idea of having a centre with a wider appeal and a budget to build more modern exhibits, as Thomas stresses that Explore is doing. Yet they say that, in the rush to open in a timely fashion for the millennium, Explore is creating expensive exhibits that favour special effects over scientific substance.

Spanish recruitment openly favours insiders

Sir — Rigidity and cronyism characterize hiring practices for academic positions in Spain (*Nature* 396, 709; 1998). This happens both in universities, as denounced in your pages, and, to a lesser extent, in the Spanish Research Council (CSIC), the country's largest research body. This is demonstrated by two worrying developments during the past few months.

First, in order to 'stabilize' the situation of university lecturers on short-term and irregular contracts, the government and university vice-chancellors have proposed promoting 10,000 of them to permanent lecturer positions. This highly irregular upgrade is, however, closed to equally qualified postdocs in non-university research institutes (such as CSIC) or abroad. It would result in a freeze on university hiring for the foreseeable future, leaving non-university centres and foreign

countries as the only outlets for researchers seeking tenure-track academic jobs.

Second, CSIC has announced 90 new research positions, for which candidates are assessed on a score of up to 20 (*Nature* 399, 400; 1999). Ten points have to be earned on merit (including publications and experience) to reach the final selection process. But five points are given as a 'prize' to people who have worked in CSIC — putting other candidates at a clear disadvantage as they can only obtain a maximum of 15 points.

Job openings at CSIC and universities are not widely advertised, and bureaucratic requirements make them almost unattainable by outside candidates (*Nature* 400, 203; 1999). For example, the 90 CSIC posts were only advertised in the Spanish Official Bulletin — an obscure government publication that is not widely available — and on the CSIC website. Applications typically have to be in within two weeks. Foreign qualifications require government 'validation', a process that can drag on for up to a year, discouraging candidates applying from outside Spain.

The solution to this cronyism is readily at hand. CSIC, universities and the Spanish government should simply follow the hiring policy of Spain's National Centre for Cancer Research, which is also common practice in Britain and the United States: job advertisements should appear in scientific journals, with plenty of time to apply, in order to attract the best candidates. The government should also remove bureaucratic obstacles that prevent outside scientists being hired.

Other problems exist in Spanish science, including 0.8 per cent of GNP dedicated to research (against a European average of 2.1 per cent), and a lack of research facilities and positions. But before solving those it is necessary to eradicate cronyism. This is one of the goals of the Association for the Advancement of Science and Technology in Spain (AACTE: <http://www.aacte.net>). It is the only way to attract good researchers, provide a healthy and flexible science base and high-quality education, and have a commitment to excellence in science.

Javier Escartin

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and 23 others

New opportunities for expert witnesses in court

Sir — Many scientists are required to give expert witness in civil litigation. Recent, sweeping reforms to English civil justice have radically changed the way scientists give their evidence. The agenda and rules of the courtroom have changed, and this may

provide new opportunities for scientific evidence to influence legal disputes. In particular the introduction of a single court expert, to replace the cross-examining of different parties' experts, will open new areas for scientists to use their expertise.

Civil law provides the basic structure within which commerce and industry operate, and safeguards the rights of individuals. In 1994, Lord Woolf was appointed to review the civil courts in England and Wales¹, resulting in the new Civil Procedure Rules (CPR)².

In English law, witnesses do not usually testify to anything but facts. However, the courts recognized the need for special witnesses providing evidence on both fact and opinion. The duties of expert witnesses evolved and were reinforced by case law³.

Although, in principle, the expert is independent of the instructing party, the system had flaws. These have been addressed in the Woolf review by introduction of new CPR, practice directions and forms. The new CPR came into force on 26 April 1999, and apply to all civil courts in England and Wales.

One key aspect of the changes is the duty of the expert to help the court, overriding any obligation to the person who instructs, or pays, the expert (CPR Part 35.3). The expert must include verification of the contents of any report with a statement of truth (CPR Part 35.10).

The court has a duty — not merely the power — to restrict expert evidence (CPR Part 35.1), and there is now a general requirement for expert evidence to be given in writing, removing many of the criticisms of the system resulting from adversarial cross-examination. Oral evidence and the attendance of experts at hearings will be restricted (CPR Part 35.5).

The changes to the civil justice system are as much cultural as procedural. All parties must be ready to be proactive, and must see this as the beginning, not the end, of the process of change.

The debate on the efficacy of expert witnesses appointed by the parties in dispute has raged elsewhere, notably in the United States in the late 1980s (*Nature* 378, 754; 1995). Litigation should be the last, not the first, resort in attempts to settle a dispute, and this principle is central to the Woolf reforms. Experts now have greater scope to both affect and effect settlement.

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1. Lord Woolf *Access to Justice* (Woolf enquiry team, Room 438, Southside, 105 Victoria St, London SW1E 6QT, UK; 1995).
2. *Civil Procedure Rules* (The Stationery Office, London, 1999).
3. National Justice Compania Naviera S. A. v Prudential Assurance Company Limited (The Ikarian Reefer) CILL 838 (1993).