# correspondence

# Peer review is a two-way process

*Sir* — We too are concerned about the fairness of the grant-awarding process. So far, recent interest has come from the applicant's viewpoint (Wennerås and Wold, *Nature* **387**, 341–343 & L. M. Castell, **387**, 841; 1997).

We write from the other side. Not every applicant, referee or grant committee member is free from prejudice or vested interest and this makes the task of managing the grant-awarding process especially challenging.

We have identified a number of problems and made some changes to our procedures:

• The chairperson, to avoid conflicting loyalties, does not apply for grants, in accordance with Association of Medical Research Charities guidelines for peer review (1995). Failure to observe this commonsense rule effectively renders any grant-awarding committee leaderless and vulnerable to self-interest (A. Fielder, *Lancet* **347**, 1188; 1996).

• Referees' comments are fed back to the applicant for brief comment before the meeting, thus involving the applicant prospectively, as in R. P. Clarke's suggestion for paper refereeing (Nature 386, 319; 1997). We believe this is critical: after all, the applicant may well be *the* expert and best able to spot factual errors and prioritize criticisms. This helps the committee, which frequently lacks specific expertise, and reduces the to-ing and fro-ing which can retard the decision-making process. We hoped that this approach would encourage referees to provide more balanced criticism, but unfortunately it did not. Indeed, selecting the appropriate referee for each topic and ensuring evenness across the research field remains a major weak link in the process.

• We have now broken with tradition and a committee member who is also an applicant is no longer permitted to defend his/her application in person, so reducing any

advantage over an applicant who is not on the committee.

One must also beware of the scientist who declares that only "good science" should be supported. This phrase hides a multitude of sins, of which self-interest is a consistent feature, and is an effective method of eliminating competition. Memories can be short — after all, early in our careers many of us had lucky breaks, some of which had their origins in serendipity rather than scientific merit. New talent and innovation must be supported and sometimes this means taking risks.

Many problems remain, linked perhaps by the common thread of a lack of transparency and secrecy in the grantawarding process. This really is not necessary — it is understood that tough decisions have to be made and not all applications can be funded. We must do better. Far too much time and energy is being wasted on a process that is stacked in favour of funding "more of the same" rather than innovation. So, let's keep the debate going to devise more efficient and equitable ways of funding science.

## Alistair Fielder

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*Sir* — Every investigator will empathize with Linda Castell's frustrations with the peerreview process. However, her reference to the article by D.F. Horrobin (*Lancet* **348**, 1293–1295; 1996) as a possible alternative is hopefully more in jest than conviction.

Horrobin proposed abolishing the UK Medical Research Council and persuading research charities to abandon peer review. That would allow upwards of £100,000 to be given each year to every academic clinician in the United Kingdom to spend on whatever ideas come into his or her head.

Sacred circle

Sir — I am surprised at the suggestion by Elizabeth Aveling that the Coupland enclosure, Milfield, was a winter kraal for cattle, as that does not fit with the given facts (*Nature* **387**, 553–554; 1997).

Aveling supports Waddington's interpretation that it was used to winter cattle. Yet the fact that a double-ditched linear feature bisects the enclosure indicates that cattle passed through it, not into it; the double-ditched feature is designed to keep them out of the two opposing cords. The idea of a kraal raises ancillary questions anyway — how many grazing cattle could this relatively small 'field' support, or did the early Neolithic undertake silage production? Is a major earthwork embankment a reasonable way for our ancestors to contain cattle, or is it proposed that the embankment was defence against human marauders?

The real answer, I suggest, lies in the almost throwaway line that it was perhaps a sacred site.

I suggest that the animals were driven

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Peer review is one part of a complex dynamic that is continually sapping the energies of funding agencies and grant seekers alike. The UK biomedical research infrastructure is under continuous strain from research assessment exercises, year-onyear reductions in government funding, policy changes by research councils, disequilibrium between research councils and charitable funding, declining infrastructure and so forth.

All these pressures overtly or covertly affect the quality and integrity of the peer review process. Regrettably, funding agencies are all too often seen as passive administrators of their research base, thus compounding the distrust of the peer review process. The response to all this must be for funding agencies to win the confidence of applicants by proactive management of their research portfolio.

The Leukaemia Research Fund debars all major grant-holders from sitting on its advisory panel; site-visit committees comprise mainly overseas experts; no group leader can site-visit another group leader; feedback is provided to all applicants (successful and unsuccessful); and resubmissions are invited.

Members of our advisory panel serve for only three years and are drawn from the whole biomedical community. After all, one does not need an expert in leukaemia to assess the quality of a positional cloning project or the role of p53 in drug resistance.

Clearly no system is perfect and we strive continually to improve. Peer review must be a two-way process between applicants and funding agencies. Trust in this dialogue can be achieved only if agencies are open and democratic in the management of their research portfolios.

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through the henge to be blessed, so that the all-powerful god(s) would protect the herd from pestilence and predators and ensure fertility. The opposing cords of the circle probably contained religious structure, symbols, sacred relics and the tribe priests. The nearby ford may also have played its part in these religious rites.

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