

patient testimonials and media accounts, and they lack independent oversight. Few offer evidence from controlled clinical studies or from rigorous follow-up of their own patients.

Government regulation of stem-cell clinics has so far been inconsistent — and is difficult in any case, owing to their cross-border appeal. But two non-governmental organizations have now started offering information to help patients navigate the flood of nonsense and half-truths. In April, the International Cellular Medicine Society (ICMS), a group of 224 doctors and researchers based in Portland, Oregon, started an ‘open treatment registry’ intended to act as a clearing house for patient and clinician testimony (see *Nature Med.* 16, 495; 2010). The ICMS also accredits clinics that “provide complete disclosure of their collection, processing and re-implantation procedures, as well as all outcomes and complications data from patients they have treated”.

In principle, this represents a step in the right direction. But the ICMS needs to be rigorous about requiring clinical-trial data for the therapies offered by the clinics it certifies, working with regulatory agencies and demanding that patient follow-up be carried out by independent third parties. It should also insist that its member clinics

put some of their profits towards testing their protocols rigorously — while thoroughly examining unexpected outcomes.

The primacy of such research is at the heart of another organization’s mission. In June, the International Society for Stem Cell Research (ISSCR), a group of stem-cell biologists and clinicians based in Deerfield, Illinois, launched a website (see go.nature.com/zK3L4e) with its own evaluations of stem-cell therapies, including a list of questions for patients to ask their doctors. Visitors to the site are briefed on the role of publication, peer review and clinical trials in turning science into medicine. They can also submit prospective clinics and treatments for an ISSCR review, which will include a check of a clinic’s ethical, regulatory and safety records.

To be considered credible, the ISSCR and ICMS must identify, and be transparent in dealing with, potential conflicts of interest. The ISSCR has made a good start, vowing to eject from the society members who are affiliated with clinics that offer unproven stem-cell treatments.

The medical promise of stem cells remains real, but largely unrealized for now. The excitement must not be left to dissolve into a muddle of disappointment, frustration and fear because of the practices of a few irresponsible profiteers. ■

When blogs make sense

Biologists and astronomers approach data sharing differently, but both need better public outreach.

Astronomers are busier than ever: “I look at our students and ... there’s less understanding and more rushing ... we’re caught up in this rat race and I don’t know what we’re chasing.” Biologists too: “Technology has made me one of the most highly paid, under-talented secretaries on campus. I have to do a lot more than I’ve ever had to do before, badly.”

These quotes come from *Assessing the Future Landscape of Scholarly Communication* (go.nature.com/6Y4b1g), a survey of 160 academics published earlier this year by Diane Harley and her colleagues in the Center for Studies in Higher Education (CSHE) at the University of California, Berkeley. The quotes are representative of academic scientists these days, thanks not least to the unrelenting pressure to publish.

In the two major scientific disciplines covered by the study — biology and astronomy — peer-reviewed publications continue to be the primary markers of academic achievement. But the survey also found regrettable disparities between the two disciplines in less-formal peer-to-peer communication. The astronomy community effectively publishes by preprint. The process of formal publication is seen as a necessary step for the record, and formal peer review adds some value. But the preprint server [arXiv.org](http://arxiv.org) is a highly trusted forum by which one can deposit the original version of a paper, thereby logging one’s priority in a competitive area, and also receive private comments by e-mail that can complement the formal peer-review process. Respondents judge the level of error in astronomy preprints to be low.

Biologists tend to avoid such open sharing of first drafts. They

acknowledge that the vastness of their community and its acute competitiveness make them reluctant to act in such a trusting fashion. That’s regrettable, because it seems from astronomers’ accounts that open sharing on preprint servers improves the standards of the literature.

But deposition in arXiv is about as far as the scientific openness of even astronomers goes. The discussion that ensues is private. As *Nature’s* experiment in open peer review showed (go.nature.com/N67mFk), and as can be seen from the lack of commenting on papers in *Nature* and other journals that encourage it, researchers see little to be gained from open discourse before or after publication. Not only are they busy, as the above quotes attest, but there’s no credit to be gained, and some risk if one makes an erroneous or critical statement in public. What is more, astronomers and biologists register active discouragement of blogging — a form of communication that in their eyes carries no stamp of reliability or prestige. That picture of resistance to interactive discussion of science on the Internet is further amplified in a new survey, *If You Build It, Will They Come? How Researchers Perceive and Use Web 2.0*, to be published later this month by the UK Research Information Network.

However, the astronomers and biologists interviewed in the CSHE survey expressed strong support for outreach and engagement, stating that they enjoyed giving public talks and contributing opinions to mass media. Here, surely, is an opportunity for blogging — or at least, for consistently displaying one’s research in a comprehensible fashion on a lab website — to acquire value and peer recognition.

Institutions need to recognize and to encourage such outreach explicitly — not just as a matter of routine, but specifically highlighting and promoting it at times of relevant public debate or when the interests and voices of scientists need to be promoted. Web 2.0 doesn’t yet have what it takes to add significant value to open academic discourse, but it can surely make a difference to the public accessibility of science. ■