

teacher training; interactive, hands-on tools to enhance the knowledge value of exhibit components; and family-oriented learning experiences. Thus these museums play a key role in promoting scientific literacy, including exposure to the scientific process, for the young.

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Confidentiality

There is a pending proposal pertinent to the unresolved confidentiality of submissions to peer-reviewed journals ("Suit alleges misuse of peer review," E. Marshall, News & Comment, 22 Dec., p. 1912). The definition of "research misconduct" recently recommended by the Commission on Research Integrity includes the intentional or reckless "use of any information in breach of any duty of confidentiality associated with the review of any manuscript or grant application." The word "any" leaves open whether a duty obtains.

The situation presents the following anomalies.

1) Authors make submissions voluntarily, and usually without entering into agreements about confidentiality with editors. (They sometimes even assign copyright shortly after submission.) When X voluntarily provides a document to Y, we expect confidentiality from Y only to the extent that X and Y have so agreed before Y's receipt. To what confidentiality treatment are journals willing to agree?

2) The nub of confidentiality is that a recipient not divulge the information. But journals are allowed to disclose submissions to referees as they choose.

3) Whether a duty of confidentiality is undertaken by a referee is merely contingent. It often rests on no more than an editor's transmittal letter, to which a referee usually does not expressly assent. Nor are such letters uniform.

4) A referee does not, and in virtue of anonymity, cannot, become bound to the author, the person whose ideas any duty protects.

Bentley Glass once observed that, to avoid using information in breach of its confidentiality, a referee or study section member would have to attempt noble self-deception, purporting to forget all, which is

nearly impossible. Hence he proposed that study sections consist only of senior scientists no longer doing research in the pertinent field. All this confirms the truism that science depends on the trustworthiness of colleagues. Still it remains essential to clarify the duty of confidentiality if breach thereof is to be misconduct. One sensible convention would stipulate that (i) there is a duty not to effect or allow the appropriation of the contents of a submission; and (ii) a journal is answerable for the conduct of its anonymous referees unless it chooses, in the event of a dispute, to present to the author the explicit agreement of each referee to abide by (i). Such convention would induce journals to reach such agreements with referees.

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Attenuated HIV Vaccine: Caveats

Candidate human anti-AIDS vaccines should be safe and effective. In their report "Genomic structure of an attenuated quasi

Patrik never fails to get a reaction

Patrik Samuelson is a molecular biologist at the Royal Institute of Technology in Stockholm, Sweden.

Patrik uses Ready-To-Go beads to convert his RNA samples into cDNA templates for PCR.*

* PCR is a patented process of Hoffmann-La Roche, Inc.

