

/CORRESPONDENCE

Patent publication

To the editor:

I write to point out an error in the December 1995 article "Patenting Biotechnology: When the Means Justify the End," by Thomson and Gammon (*Bio/Technology* 13:1446). The authors incorrectly state that one of the results of the recently implemented GATT legislation is that U.S. patent applications are now made public 18 months after the application is filed in the U.S. Patent and Trademark Office. While publication is the rule for patent applications filed in most other countries, the rule has been, and continues to be, that U.S. patent applications are maintained as confidential until the application issues as a patent. GATT did not change the law on this point.

Legislation to require publication of U.S. patent applications currently is pending in Congress (H.R. 1733). As the authors correctly note, such automatic publication of patent applications could provide competitors with the information with which to practice an invention before any proprietary protection is in force. However, this legislation has not yet been enacted. Applicants who delay filing because of the belief that publication 18 months after filing in the United States is the present state of the law may lose valuable rights.

Cathryn A. Campbell
Campbell & Flores
4370 La Jolla Village Drive
San Diego, CA 92122

Transgenic ruminations

To the editor:

As a researcher actively engaged in production of therapeutic products in milk of transgenic animals, I was disappointed by the tone of the Commentary in the December 1995 issue (*Bio/Technology* 13:1424). I also take exception to several specific points within the piece.

Dr. Dixon states that "No society is well served when the concerns of even a minority of its members are suppressed or ignored." This statement is easy to agree with, and I would like to apply it to people suffering from a deficiency of AAT, protein C, or Factor IX. These people may suffer needlessly if new methods of production are not developed. Patients treated with clotting factors purified from human blood are at risk for a large number of blood-borne pathogens (e.g., HIV, HTLV, hepatitis). While precautions are taken to eliminate contaminants from blood-derived

products, the risks involved in using human blood can't be eliminated. Is society well served if the actual risk to human patients inherent in current technology receives less consideration than a perceived danger to animal welfare associated with developing new technologies?

I was confused by Dr. Dixon's mention of Belgian Blue cattle. These animals are raised by conventional animal husbandry methods. The fact that 90% of their calves must be delivered by Caesarean is indicative of the fact that animal husbandry is designed to serve humanity, not animals. There is nothing new, shocking, or embarrassing here except that the example has nothing to do with transgenic technology, despite the title of the article. And what of Dr. Dixon's question about "...the possibility that the undesirable effects of transgenes may come to light in future generations, when they interact in unforeseen ways with other parts of a recipient species' genome?" Research demonstrating that transgenes can be transmitted through generations without any ill effects has already been published in *Bio/Technology*. Does Dr. Dixon read the journal that he writes for?

Finally, I disagree with Mr. Dixon's objection to the use of the word bioreactor. His own dictionary defined bioreactor as "a vessel used to carry out a biological reaction." Surely the rumen must be the prototypical bioreactor. The mammary gland is a downstream processing compartment connected to the rumen by the vascular system. In short, the whole animal is a bioreactor that transforms hay into milk. Production of recombinant proteins in milk could be compared to adjusting the fine tuning on an FM receiver. It changes the output, but it doesn't alter the machinery. Instead of stamping out the use of the term bioreactor, let us patiently explain to those who are needlessly offended or alarmed, how a slight change in the miraculous transformation of hay into milk may save lives.

Sinai Yarus
Department of Cell Biology
Baylor College of Medicine
One Baylor Plaza
Houston, TX 77030
syarus@mbr.bcm.tmc.edu

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345 Park Avenue South,
New York, NY 10010,
fax: 212 696-9635,
(e-mail: m.francisco@natureny.com).

IMAGE
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REASONS

"Can somebody please give me the time?"