

# CORRESPONDENCE

## CREDIT WHERE CREDIT IS DUE

To the editor:

I would appreciate your publishing this letter to correct a citation given by James L. Dwyer of Millipore Corp. (Bedford, MA) in his article, "Scaling Up Bio-Product Separation with High Performance Chromatography," which you published in November. Dr. Dwyer cites a speech I gave at Arthur D. Little's Fifth Biennial Forum and credits me with the data analysis of his Figure 1 (page 957).

Although I did indeed use the figure in my speech, the data analysis and the development of the figure—as I mentioned—were performed by Dr. Alejandro Herrero in the course of a project we carried out for STU, the Swedish National Board for Technical Development. We requested and received STU's permission to use the figure at the Forum and in the future publication to be authored by myself, Dr. Herrero, and others.

Incidentally, Dr. Herrero is now serving as the general director of Ingenasa, Spain's national biotechnology company.

John M. Nystrom  
Arthur D. Little, Inc.  
Acorn Park  
Cambridge, MA 02140

## DIDN'T INTRODUCE HERBICIDE RESISTANCE

To the editor:

I was surprised to read in your article entitled "Engineering herbicide tolerance: When is it worthwhile?" (November, 1984) that my colleagues and I had successfully transformed tobacco with a bacterial gene. We were reported to have introduced a mutant allele of the *Salmonella typhimurium ilvG* gene that bestowed upon the transformed tobacco plants a high degree of resistance to the Du Pont herbicides Glean® and Oust®.

Introduction of an agronomically important trait into a crop plant by genetic transformation is currently the goal of many researchers throughout the world. We would have liked very much to have accomplished that which was attributed to us in this article. However, we have not done so.

Perhaps a brief summary of our achievements to date will clarify the matter. Mutant forms of *Salmonella typhimurium* (LaRossa and Schloss,

1984, *J. Biol. Chem.* **259**:8753), *Escherichia coli* (Yadav and Benard, in preparation), *Saccharomyces cerevisiae* (Falco and Dumas, in press), and *Nicotiana tabacum* (Chaleff and Ray, 1984, *Science* **223**:1148; Chaleff and Mauvais, 1984, *Science* **224**:1443) resistant to one or both of the active ingredients of the herbicides Glean® and Oust® have been isolated. Mutations residing in the structural gene for acetolactate synthase (ALS) that reduced the sensitivity of this enzyme to inhibition by these two sulfonyl-urea herbicides were isolated in all four organisms. These studies identified ALS as the site of action of the herbicides Glean® and Oust® and demonstrated that resistance can be effected by production of an altered form of the enzyme.

The tobacco mutations, although selected in cell culture, are expressed at the whole plant level: plants homozygous for one mutation that reduced ALS sensitivity to the herbicide are at least 100-fold more tolerant of Glean® than is the parental variety. It must be emphasized that resistance was obtained in tobacco as the result of mutation and not, as is stated in the article, by introduction of a resistant allele of the *Salmonella ilvG* gene.

Roy S. Chaleff  
Research Leader  
E. I. du Pont de Nemours & Co.  
Wilmington, DE 19898

## DATABASE RESOURCEFULNESS

To the editor:

In the November 1984 issue, the article entitled "Big Resources for Small Computers" mentioned several genetic information sources and databases, among them EIC/Intelligence's "Telegen."

We'd like to clarify a point. Telegen does provide the full-text for over 70 percent of the documents abstracted on the system. While it is true that the full-text is not available online, users do have the option to order the original document online directly from EIC/Intelligence and have hardcopy or microfiche sent to them immediately.

Susan M. Emerson  
Online Marketing Coordinator  
EIC/Intelligence, Inc.  
48 West 38th Street  
New York, NY 10018

To the editor:

Could you explain to me why your biotechnology stock reports are no longer given. I found the BIO/TECHNOLOGY tables by far the most useful I have seen—far more so than the *Nature* list—and I would like to see their return.

S. W. Bunting  
Manager in Venture Capital  
Prutec Ltd.  
17 Buckingham Gate  
London SW1E 6LN, U.K.

*The "Stock Prices of Selected Biotechnology Stocks" ran in our January issue (which crossed Mr. Bunting's letter in the mail) and will continue to run from time to time. The Index is useful as a barometer of Wall Street's attitudes toward biotechnology and as a gauge of public acceptance generally. But we doubt—especially in these days after the public-offering flood—that an index of stock prices has any fundamental bearing on the conduct of biotechnology research and development. We put the question to our readers: Do you need the stock index every month?* —DMcC

## FOREST BIOTECH MEETING

To the editor:

The article "Biotechnology touches the forest" by Tabitha M. Powlidge in the September issue was very well written and clearly summarized the presentations at the International Symposium of Recent Advances in Forest Biotechnology held June 10–13, 1984, in Traverse City, Michigan, organized by Drs. James Hanover, David Karnosky, and Daniel Keathley.

The only omission in the article was the source of her information.

Keith Redenbaugh  
Plant Genetics  
1930 Fifth Street  
Davis, CA 95616

## ERRATUM

In the article titled "Molecular Biology and Ecology of Diazotrophs Associated with Non-Leguminous Plants" by Claudine Emerich in the November issue (**2**:967–978), pages 969 and 970 were inadvertently transposed.