

# Sterile Integrity runs in our family.



From make-up to feed systems; through reaction and downstream processing, Tri-Clover stainless steel flow control products are precision built to help ensure the sterile integrity of your biological systems.

Sanitary design — a secure processing environment for "people products" has been our business for over 65 years:

**Item:** 95% of our products are sold to food and beverage, pharmaceutical and cosmetic companies.

**Item:** Stainless steel finish combinations and electropolishing skills to match your requirements.

**Item:** A project engineering department experienced in sanitary system design and processing parameters.

Why shop around for "hardware"? Here's a single and responsible source for sanitary pumps, valves, fittings and flow control components for your shear sensitive biological systems. Send for Bulletin B-86.

Your number one solution in biotechnology.



**LADISH CO., INC.**  
Tri-Clover Division  
Kenosha, Wisconsin 53141

QB-186

## CORRESPONDENCE

### RIFKIN: ONLY IN AMERICA

To the editor:

I read the editorial titled "Enterprises turned awry" in the May issue, and although I am only a citizen on the sidelines I cannot help wondering what can be done to counter all the negative efforts of Jeremy Rifkin. He has accomplished much, evidently, to prevent the practical applications of recombinant research. I am wondering, however, whether he knows that he can do so only in the United States. Other western nations and the Soviet Union lie beyond his legal reach, and all this means is that he is retarding American efforts in comparison with the others. This is certainly an unpatriotic and undesirable thing to do.

James K. Feibleman  
Department of Philosophy  
Tulane University  
1314 First N.B.C. Bldg.  
210 Baronne Street  
New Orleans, LA 70112

### VACCINE PURITY

To the editor:

I was astonished to read Harvey Bialy's article, "Cloned Malaria Vaccine Enters the Clinic," on page 384 of the May 1986 issue.

The article, a report on an American Society for Microbiology symposium, quotes J. D. Chulay of the Walter Reed Army Institute of Research describing the new antimalarial vaccine developed by Smith Kline & French and Walter Reed: "This is the purest vaccine ever administered to humans," containing less than 20 nanograms of nucleic acid, and less than 5 units of endotoxin, per milligram of protein.

I would like to point out, however, that Mérieux Institute in France produces and distributes a new, reassessed Inactivated Polio Vaccine (IPV) from Vero cells grown on microcarriers. This IPV was licensed in France in July 1982, and recently in Belgium; more than 10 million doses have been administered without specific complaints. The vaccine is so well purified that it contains *per dose of vaccine*:

- less than 10 picograms of residual cellular DNA;
  - less than 3 micrograms of protein; and
  - less than 0.01 units of endotoxin.
- If we calculate these levels *per milli-*

*gram of protein*, this vaccine contains less than 3 nanograms of DNA and less than 3 units of endotoxin. Dr. Chulay's statement, "purest vaccine ever administered to humans," should be corrected, for example, to read "purest antimalarial or anti-parasitic vaccine..."

B. Montagnon  
Head of Virology Production  
and Development Unit  
Institut Mérieux  
Marcy-l'Etoile  
69752 Charbonnières les Bains  
France

### ERRATA

In the paper "Size and density of protein inclusion bodies" by G. Taylor, et al., (*Bio/Technology* 4:553-557, June '86), the graphs for Figures 1 and 2 were transposed.

In the meeting report on "Filamentous fungi join the production ranks" (*Bio/Technology* 4:385, May '86), the discussion scheduled to be presented by, and attributed to, Wayne Davies (Allelix) was actually presented by David Gwynne. The paper summarized the research of Gwynne and Frank Buxton, both in Davies' group at Allelix.

### CLARIFICATIONS

The book *Economic Aspects of Biotechnology* by Andrew J. Hacking (Cambridge University Press, London, 1986) was used as one of the resources during preparation of the article on "Fermentation economics" (*Bio/Technology* 4:395-401, May '86). Acknowledgement of this source was inadvertently omitted.

*Bio/Technology* has received a number of requests for the telephone number and address of the *Bioindex* database described in June's Chronicle section (p.495). Anyone interested can contact Thomas Cooper, President, Technical Communications, 4139 Coralee Lane, Lafayette, CA 94549 (phone 415-284-5605).