

## Letters

### Grant Financing: PI Salaries

Desperate times require desperate measures, or so we are told. If ever a piece of time-honored advice were revealed as empty and dangerous, it is in Martin Frank's letter of 26 January (p. 393).

Frank suggests that if the National Institutes of Health (NIH) ceased including the salaries of principal investigators (PIs) in grants, enough money would be liberated to fund 5000 new grants. As to what would happen to the scientists whose universities would no longer be able to pay their salaries, he tells us not to worry: they could go to smaller colleges and universities that have "hard" money with which to pay them. Moreover, it would have the further advantage of attracting more undergraduates to the research profession because they would be exposed to active scientists.

This idea is inconsistent with an understanding of institutional finances and of the history of American higher education. With respect to the former, it would be recognized that the terms "hard" and "soft" mon-

ey are only metaphors. They do not really describe different kinds of money, but money that comes from different sources. For a college or university needing to pay its faculty, those sources are limited in number and known. They consist of student tuitions, governmental appropriations, gifts and income from endowment, and salary offsets from research grants and contracts. The idea that small colleges and universities have a surplus of something called "hard money" that they can use to pay the salaries of scientists who leave the faculties of Harvard, Stanford, and the University of Michigan is preposterous. The thought of PIs from the Harvard Medical School faculty being snapped up by Williams, Amherst, and Wesleyan has a Woody Allen-like quality about it.

An equally serious flaw in the idea is that, if it were implemented, American higher education would be turned on its head. Our universities have been built on the premise that research and graduate education go together because each enriches the other. Therefore, they are best done in the same place by the same people. This system works, as the splendid accomplishments of our universities demonstrate. To destroy so successful and valuable a system in order to squeeze

a few more grants out of NIH (in the unlikely event that the money saved would actually remain in the NIH budget) would be an instance of terminal expediency.

ROBERT M. ROSENZWEIG

President,

Association of American Universities,  
Suite 730, One Dupont Circle,  
Washington, DC 20036

### Carrel's Cultures

I was surprised to see that Barbara Culliton, in her recent article "Rockefeller braces for Baltimore" (News & Comment, 12 Jan., p. 148) perpetuated the myth that Alexis Carrel "kept a chicken heart 'alive' for an incredible 34 years." Several errors are compounded in this one sentence (1). First, it was not a chicken heart that Carrel kept alive for 34 years; it was a culture of fibroblasts derived from embryonic chicken heart. As a surgeon, Carrel was interested in wound repair, and he hoped that the newly developed technique of tissue culture could be applied to studying wound healing. His assistant Montrose Burrows went to Yale University, where Ross Granville Harrison was observing directly the outgrowth of



## A good pair of hands is a terrible thing to waste.

DNA sequencing can tie up the best hands in your lab for hundreds of hours each year, even if you run only two or three gels a week.

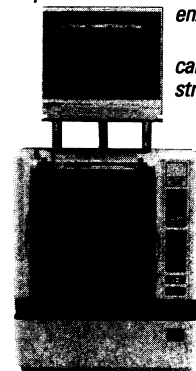
EG&G Biomolecular can offer you a way out—the Acugen 402 Automated DNA Sequencer.

The Acugen 402 is an Automated DNA Sequencer designed for the individual laboratory. Easy to operate, and priced to fit your budget, the Acugen 402 conveniently collects, analyzes, stores, and organizes your sequence data. It works with conventional radioisotopic label, with standard enzymes, and with any primer you choose.

Templates are no problem for the Acugen 402. You can sequence effectively from single-stranded, double-stranded, or PCR templates.

To find out just how much time you can liberate by switching to automated DNA sequencing with the Acugen 402, call the EG&G Biomolecular toll free number.

The Acugen System.  
You have nothing to lose but your chains.  
1-800-248-3464 (in MA, 508-650-1180).



**EG&G BIOMOLECULAR™**  
Instruments for exploring the molecules of life™