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University of Southern California,
Los Angeles 90033

Goldhaber’s report would be more appropriately entitled: “Harvard returns to academic excellence,” instead of “Harvard reverts to tradition.” The comments on medical education only point out the prevalence of liberal thought in our universities. Because something is “traditional” it is not desirable, and, a priori, should be changed. The core curricula in progress or being developed by many medical schools are somewhat a response to change for change’s sake. It should come as no surprise that national board scores are lower, or that many clinicians “are amazed at how little medical students know.” Abandoning grades, competition, and organized course disciplines for integrated cores could not help but encourage laziness, and decrease motivation, resulting, of course, in happier students and substandard performances. Indeed, most faculty, not exclusively those in basic science, would have predicted the outcome of such programs, as Harvard’s experience has shown quite well. Goldhaber talks about the politics of unhappiness among basic science faculty but says nothing about the politics of happiness (students’) and how schools have striven gloriously in order to keep up with student demands. The quality of physician that such a system produces will be even more of a shock to medical schools in the future, despite the financial pressures to turn out more people. The inspired revisions of the medical curricula at Harvard and Yale should not be viewed as “reversion to tradition” or a “move to the right,” but, more accurately, as an expression of a
rational, reasonable recourse in continuing (but recently interrupted) quality medical education.

RONALD PAQUE  
Department of Microbiology,  
University of Illinois, Chicago 60680

Samuel Goldhaber, in his report on the "Yale system" of medical education (News and Comment, 14 Sept., p. 1029), quotes me several times, but he has quoted out of context. To begin with, I do not spend the greater part of my day wondering "Have I gotten everything out of it?" I made this comment in reference to the first few months of my first year at Yale. This time would be a period of adjustment for anyone, at any institution. Yes, even Harvard.

As I told Goldhaber, after working for grades in a competitive college setting, I found some realignment of my approach to learning vast quantities of new material to be in order. But herein lies the main reason why I and many of my fellow students came to Yale. The thought of no longer having to measure my knowledge by the hourly exam in fact prompted my application. The Yale student is afforded the unique opportunity to absorb those vast quantities of new material in much the same way as he will when he is no longer in medical school (although still very much a student). The majority of students at Yale have both the motivation and desire to study the practice of medicine in such a manner. My 3 years at Yale have been nothing less than enjoyable, in every sense of the word.

To state, as Goldhaber does, that the "Yale system is in serious trouble" (p. 1031) and to imply that the quality of medical education can be judged on the basis of National Board ranking is not justified.

ROBERT F. MALACOFF  
Yale School of Medicine, New Haven, Connecticut 06510

Slow Viruses

In the report "Slow viruses: Role in persistent disease" (Research News, 29 June, p. 1351), Jean L. Marx states, "A conventional virus has . . . been isolated from the brains of patients suffering from SSPE [subacute sclerosing panencephalitis]." She then describes the conclusion of John Sever and his colleagues that it is probably the absence of specific cellular immunity for measles virus in the host that is responsible for the development of SSPE. Although it is possible that future studies will indeed prove that this is correct, in the light of our present knowledge, we must challenge this viewpoint.

There have been a number of viruses isolated from patients with SSPE (1), and they have all been shown to react with measles antibody. Two of these agents, the JAC virus and the LEC virus, have been examined thoroughly in our laboratory and found to be different from a strain of wild measles virus. These differences are apparent in their growth pattern (2), susceptibility to suppression by antimetabolites (3), distribution of viral antigen in the cells (2), ultrastructural pattern of growth (4), and encephalitogenicity for experimental animals (5). All of these data, not cited by Marx, point to the fact that the agents we studied were not "a conventional

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Professor Dr. D. Palm, Director of the Pharmalological Institute of the University of Frankfurt/Main, Germany.
Professor Pierre Pichot, Head of Medical Psychology, Centre Psychiatrique Sainte-Anne, Paris, France.
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(Continued from page 709)


Atlas of Quartz Sand Surface Textures. David H. Kinsley and John C. Doorn-


Digital Interface Design
D. ZISSOS and F. G. DUNCAN
(Harwell Post-Graduate Series)
1973 183 pp. 137 figs. $13.00

Stirling-Cycle Machines
GRAHAM WALKER
1973 166 pp. illus. $15.25

Negative Electron Affinity Devices
R. L. BELL, Varian Associates, Palo Alto, California. (Monographs in Electrical and Electronic Engineering)
1973 148 pp. 54 figs. $13.00

Particle Interaction
Physics at High Energies
S. J. LINDENBAUM, Brookhaven National Laboratory and Mark W. Zemansky, Professor of Physics, City College of the City University of New York. (International Series of Monographs on Physics)
1973 526 pp. 115 figs. $48.00

Magnetic Interactions in Solids
H. J. ZEIGER and G. W. PRATT, both at Massachusetts Institute of Technology. (International Series of Monographs on Physics)
1973 675 pp. 87 figs. $62.50

The Fermi Surface
Its Concept, Determination and Use in the Physics of Metals
A. P. CRACKNELL and K. C. WONG. (Monographs on the Physics and Chemistry of Materials)
1973 558 pp. 182 figs. $48.00

The Theory of Electrical Conduction and Breakdown in Solid Dielectrics
J. J. O'DWYER, State University of New York, Oswego. (Monographs on the Physics and Chemistry of Materials)
1973 326 pp. 126 figs. $32.00
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- Test Tubes...
- Requisition Forms...
- Containers...
- Control Lots...

There are many ways a Time Consecutive Numbering System can save you time through increased efficiency. Inexpensive and easy-to-use, Time Consecutive Number Labels are self-sticking—adhere to any surface in temperatures ranging from $-70^\circ$F to $+250^\circ$F. Numbers can be repeated from 1 to 10 times on a choice of seven different color stocks. Available in handy pre-cut tablet or clinically safe BACTERIOSTATIC roll form.

Adaptable to any numbering system you develop, these labels are supplied with a standard "No." prefix or any of 5 other prefixes. Think of the efficient, economical systems you can develop using Time Consecutive Numbers.

Write today for free samples, and more information on Time Consecutive Numbers and other TIME Products for the Laboratory. We will also send the name of your nearest dealer.

NOTE: NEW ADDRESS. We have recently moved into new facilities; enlarged and automated to serve you better.

Circle No. 91 on Readers' Service Card

unique new gc

Packard introduces the new Model 419 Becker Gas Chromatograph with the exclusive lift-top oven. The entire analytical package—inlets, columns, detectors—lifts up to give 360° eye level access for quick changing of columns or can be lifted off for rapid exchange of analytical systems. Large column oven with digital control of temperature parameters from $-150^\circ$C to $500^\circ$C. A true proportional cryogenic attachment...and the unique multiflex injection system are only a few of the total flexibility features of the 419. And with every 419 comes Packard's world-wide sales and service organization. Write for additional information—request Bulletin 1192.

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Two important new developments in acrylamide electrophoresis

These new products further extend the applicability of Ortec high-resolution electrophoresis in both research and clinical laboratories.

1. Pre-cast Gradipore™ gels—14 sample wells in each flat slab encased in a disposable cell. Continuous sieving action through a gel gradient of 4% to 26% recrystallized acrylamide. Gradipore gels, ten to a box, all with exactly the same composition, eliminate the nuisance and the chance for error in casting your own. One-year shelf life assures a fresh gel when you need it.

2. New easy-to-operate Model 4310 Densitometer sees and counts single photons (the smallest quanta of light), resulting in stability and accuracy never before possible. Small region of special interest in a sample can be scanned separately and still produce a full-width trace. Large sample tray accommodates all electrophoresis and TLC media.

Write or call us for complete information. Ortec Incorporated, 110 Midland Road, Oak Ridge, Tenn. 37830; phone (615) 482-4411. In Europe: Ortec Ltd., Dallow Road, Luton, Bedfordshire, England; or Ortec GmbH, 8 München 13, Frankfurter Ring 81, West Germany.

An ISCO Golden Retriever

fetches fractions with a flourish

An ISCO Model 328 Golden Retriever offers you many exclusive features. Handles 3 to 70ml test tubes, or scintillation vials, in removable, self-standing racks. Push button programming for digital selection of time, drop, or volumetric increments. Illuminated digital display. Delay timer to synchronize tube contents with recorder event marks for precise location of fractions. Immersible, lift-off mechanism is easy to clean. Anti-condensation devices protect electronics in the coldroom, even when instrument is off.

Golden Retrievers are priced from $975 to $1170. Send now for your copy of ISCO's current green catalog.

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Sand and Sandstone is '... a thought provoking guide to the study of deposits of sand and sandstones. Any geologist would profit from reading the book. It will be the standard reference in its field for some time to come.' —American Mineralogist, May/June 1973


The Sea and the Ice. A Naturalist in Antarctica. Louis J. Halle. Published in cooperation with the National Audubon Society by Houghton Mifflin, Boston, 1973. xvi, 286 pp., illus. $8.95. Audubon Library.


To Find a Dinosaur. Dorothy E. Shuttleworth. Doubleday, Garden City, N.Y., 1973. xiv, 114 pp., illus. $4.95.


