

Nanosphere™ Size Standards. Certified in billionths of a meter by Duke Scientific

Nanosphere Size Standards are calibrated in billionths of a meter (nanometers) and are available in 22 sizes from 21 to 900nm—all traceable to the National Bureau of Standards. Nanospheres are part of our complete line of spherical particles from 0.02 to 2000 micrometers in diameter. They are used as standards for instrument calibration, quality control, filter checking, and in numerous biotechnology applications. At Duke Scientific—established in 1971—we have the expertise and resources to meet any of your requirements for microspheres and particles. Call us today for information.



1135D San Antonio Road, Palo Alto, CA 94303, Toll Free
(800) 334-3883, in CA (415) 962-1100, Fax (415) 962-0718



Circle No. 19 on Readers' Service Card

project at the Idaho National Engineering Laboratory (INEL) can be arranged by political pork-barreling, thereby circumventing scientific peer review. Questions of the Idaho laboratory as a site to develop the new cancer treatment facility have been raised and are genuine concerns of medical doctors. Radiation oncologists, experts in cancer medicine, and medical scientists are skeptical about INEL as a suitable site for a sophisticated cancer treatment facility that would conduct studies of cancer patients with brain tumors and melanomas. The remote location and lack of a suitable medical environment or supporting medical expertise makes it unlikely that INEL would be qualified for the conduct of a quality-controlled clinical trial of a new form of cancer therapy. Such scientific studies require first-class radiation and neutron therapy specialists, medical physicists, and neurosurgeons, as well as excellent supporting scientific and medical staff. The environment in which to conduct the study also requires proximity to a major tertiary medical center with highly qualified, skilled, and experi-

enced radiation oncologists, neurosurgeons, diagnostic radiologists, medical physicists, neuro-oncologists, and radiobiologists to direct and conduct the clinical trials on human patients. We and other radiation and neuro-oncologists would have considerable reservations about referring patients to INEL to receive a new and experimental form of cancer therapy. Those of us in the peer community who are knowledgeable about this field concur with Robert G. A. Zamenhof that the methods and strategy being used to obtain funding for the Idaho project and the type of pressures being exerted to force Congress to provide funding are not ethical.

YOSH MARUYAMA

Head,
Department of Radiation Medicine, and
Director, Neutron Therapy Research Project,
University of Kentucky Medical Center,
Lexington, KY 40536-0084

JACEK WIERZBICKI
University of Kentucky Neutron
Therapy Program,
University of Kentucky Medical Center

Invention of the Autoanalyzer

Barbara J. Culliton (News & Comment, 2 Mar., p. 1026) states that Edwin (Jack) C. Whitehead "made a fortune inventing scientific equipment such as the autoanalyzer for blood." Actually, the autoanalyzer was invented by a biochemist, Leonard T. Skeggs. Skeggs described his invention to me in the early 1950s. He said that prototype versions were working beautifully and that he was dickering with the Technicon Co. (headed by Whitehead) to manufacture and market the device. In short order, the machine had revolutionized blood chemical analysis in clinical laboratories worldwide. Not only could far fewer technicians turn out many more determinations in much shorter times, but results were also more dependable. I suspect that among the countless users of the autoanalyzer, few know who invented it.

REGINALD A. SHIPLEY

35 Lyman Street, Easthampton, MA 01027

Unscrambling an Egg

While I agree with Leonard Hayflick's assertion (Letters, 15 June, p. 1281) that an egg can be unscrambled by feeding it to a hen, I do not agree that the process violates the Second Law of Thermodynamics. If the hen is regarded as a thermodynamically open system, the decrease of entropy involved in organizing a new egg is more than compensated by the hen's concurrent production of entropy-rich wastes. Thus, the inviolability of the Second Law is preserved.

C. L. CARNAHAN

Lawrence Berkeley Laboratory,
Berkeley, CA 94720

I'm afraid that Hayflick has not found a way of violating the Second Law of Thermodynamics. Feeding only one scrambled egg to a hen will not produce a new unscrambled egg—even a hen is not that efficient. If he uses a three-egg omelet, containing the original shells, it might work; but that only confirms the Law.

WILLIAM E. MCINTYRE

1460 North Court Street,
Circleville, OH 43113

Smokers: Black and White

Concerning Health and Human Services secretary Louis Sullivan's appropriate condemnation of R. J. Reynolds' marketing approach (Briefings, 2 Feb., p. 530), *Science* says, "Blacks smoke more than whites." Not