

tional costs involving many billions of dollars even in a single lifetime. If the matter is really that important, who should be doing the detailed thinking about the next step towards an ultimate demonstration of the presumed deleterious trend?

Perhaps consideration should also be given to the possible genetic effects of legislative changes of the kinds recommended by Mayr, irrespective of whether the frequencies of "superior" gene combinations are decreasing. Would such measures lead to any substantial increase in their frequencies, and is this desirable? These questions could, presumably, be studied by following appropriate sub-groups within a population, but how much thought and effort are such studies worth?

HOWARD B. NEWCOMBE

Biology Branch, Atomic Energy of Canada, Chalk River, Ontario

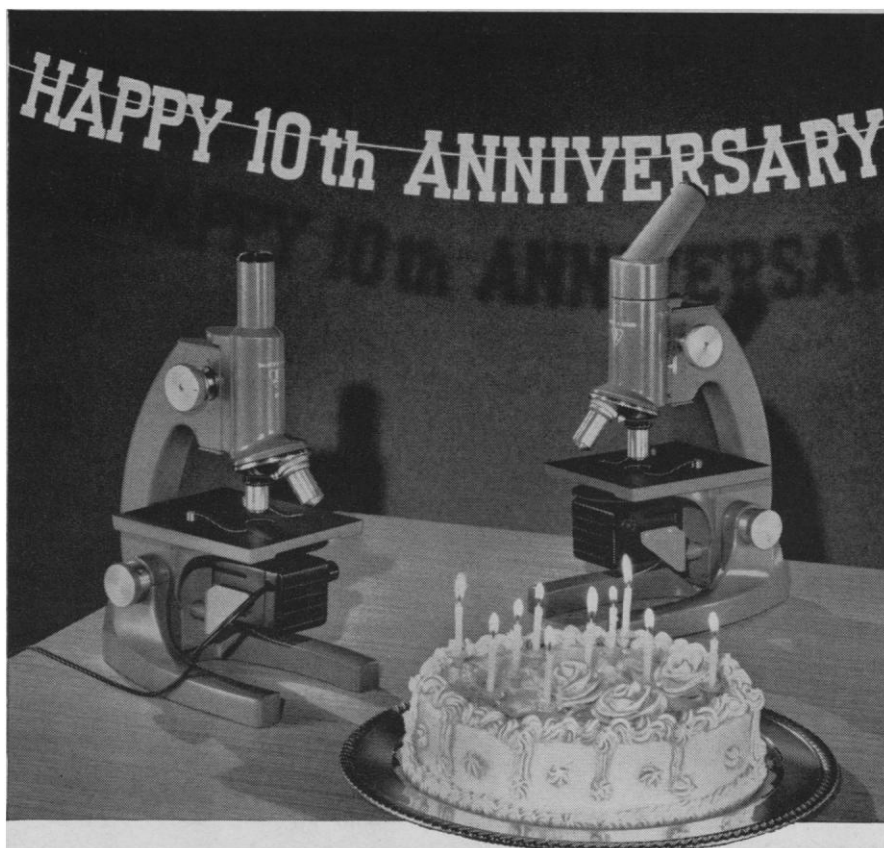
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#### That 1953 Fallout

E. J. Sternglass refers to the fallout in 1953 in the Troy-Albany area in his report "Cancer: Relation of Prenatal Radiation to Development of the Disease in Childhood" [*Science* 140, 1102 (7 June 1963)]. He assumes that there would have been a significant dose to the bone marrow of the human embryo because of radioisotopes ingested by the mother with fresh milk and vegetables.

As I pointed out in a previous comment, upon a report by Ralph Lapp [*Science* 138, 732 (9 Nov. 1962)], the 1953 fallout in this area occurred on 26 April 1953 and the average date of first pasturing in the area was 12 May, 17 days later. There was a total of 5.36 inches (13.6 cm) of rain during the period between the deposition of the



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fallout and the date of first pasturing. Therefore it would seem that the amount of fission products ingested by a milk-drinking, pregnant woman subsequent to 12 May would have been very small indeed.

There could have been little ingestion of fission products with leafy vegetables, for only asparagus was grown and marketed before June 1953 in this area. Asparagus was first harvested on 10 May, according to the records of a representative market gardener.

The cancer report files of this department reveal no increase in the incidence of cancer or leukemia over the past ten years in children of the Albany, Troy, and Schenectady areas—who were 15 years of age or younger in 1963—as compared with children of this age elsewhere in upstate New York.

JAMES H. LADE

*New York State Department of Health,  
Albany*

## Fluorescence Microscopy:

### Use in Intracellular Microscopy

Bullock, in his paper on "Neuron doctrine and electrophysiology" [*Science* **129**, 997 (1959)], calls attention to the difficulty that intracellular microelectrodes must be placed blindly because a tiny glass tip is invisible in a medium of high refractive index. *Science* publishes numerous reports on intracellular microelectrode studies, and some of those working in this field might find it worth-while to try using fluorescence microscopy with electrodes of a fluorescent glass such as uranium glass or a rare earth glass. Since a fluorescent object is self-luminous, objects of any size and any refractive index can be seen if fluorescence emission is adequate. With preparations thin enough for substage illumination, cells can be made visible by combined phase and fluorescence microscopy [Price and Christenson, *Mikroskopie* **12**, 14 (1957)—(no reprints left)]. Thicker specimens can be observed with an incident light microscope, with cells made visible by a fluorescent dye such as acridine orange, which has been used for vital staining of nerve tissue by, among others, Zeiger and Harders [*Z. Zellforsch. Mikroskop. Anat.* **36**, 62 (1951)].

GEORGE R. PRICE

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