our strain of virus in cultures of feline renal cells in the presence of specific antibody. The presence of antibody did not alter the type of lesion when a large inoculum was used to infect the cultures. The microscopic plaques produced in the FL cells were similar in appearance to those described in HeLa cells by Farnham(17).

Summary. The virus of herpes simplex was passed serially 20 times in cultures of feline renal cells. Multiplication of the virus was demonstrated when infectivity titers were measured in mice and in tissue culture. The adapted virus induced cytopathogenic changes in cell cultures of feline kidney, primary human amnion, human kidney, and FL cells. Several conditions which appear to influence the type of cytopathogenic change in cell cultures are discussed.

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Movement of Radiostrontium Through Intestinal Tract of Fed or Fasted Rats.* (25299)

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During a study of radiostrontium absorption in rats, a simple method was developed for determining its progress through the intestinal tract. The method should prove equally of value in studies using other radioactive substances. It is particularly useful for estimating the amount of radioisotope available for absorption in different segments of the tract at various times after oral administration.

Methods. Adult female rats of Wistar strain were given 3 μc of $Sr^{89}Cl_2$ in 0.75 ml water by stomach tube. One group had been fasted during 24 hours prior to experiment, while the other group was fed *ad lib.* Both groups were subsequently given water *ad lib.*, but no food. They were killed in groups of 4 at ½, 1, 2, 4, 6, and 24 hours, and the intestinal tracts removed and laid out in a straight line. The radioactive material present in successive 1 cm lengths of the gut was determined using a collimated Geiger counting tube, a counting ratemeter, and graphic recorder. The gut can be counted continuously by placing it on moving paper of a kymograph with extender, fixed so that the paper is horizontal.

Results. Fig. 1 shows distribution of radiostrontium at different time intervals in representative animals from the fasted group. Fig.

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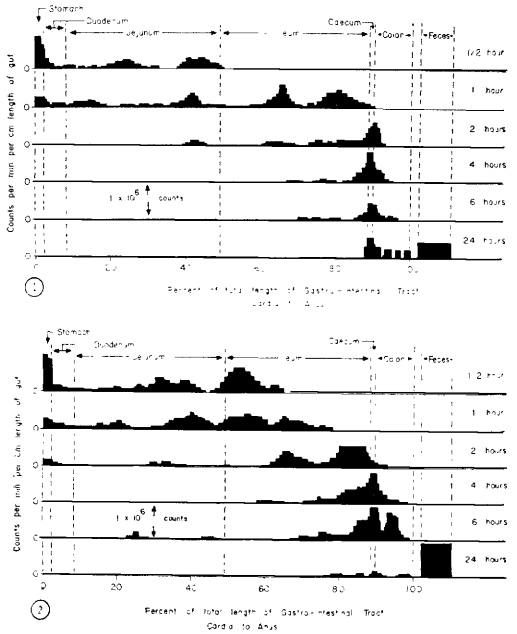

FIG. 1. Location of radiostrontium in intestine of fasted rats.

FIG. 2. Location of radiostrontium in intestine of rats previously fed *ad lib.*

2 shows similar data for the fed group. It is apparent that previous feeding increased the emptying of stomach and movement of the dose through duodenum and jejunum, but resulted in longer retention in the ileum. In the fed group, emptying of colon also occurred earlier. In all cases, distribution of the isotope was not uniform, but was concentrated in separated areas.

The method described using a radio-tracer as indicator of its progress in the gut has advantages over the bead methods of Elliott(1). Alvarez(2) and other use of inert indicators because there is no lag or separation of the tracer. The radioactive indicator does not alter progress of food as does barium(2), and unlike dye indicators it can be located accurately when mixed with feces. That progress of Sr^{89} was measured while absorption was occurring is an advantage in accord with the purpose for which the method was designed. Endogenous excretion of absorbed Sr^{89} was only 2% of administered dose in 6 hours, and only 6% dose in 24 hours(3). Krzywanek (4) observed that frequent feeding increased the rate of progress of barium meal through the intestinal tract. The present study shows that feeding also increased the movement of indicator from specific gut sites, when the indicator was administered some time after the food intake had ceased.

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Plasmalogen in the Developing Brain.* (25300)

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Concentration of plasmalogen is quite different for different tissues(1,2). Furthermore, Yarbro and Anderson(3) showed that plasmalogen level in a tissue may change during rapid development or differentiation of tissue so that a "characteristic" plasmalogen level must be described not only in terms of specific tissue studied but also in terms of stage of development. Since brain tissue is known to change during early development as myelin is formed(4), we were interested in the relationship of plasmalogen concentration to stage of development of the brain. Analysis of rat brain showed that the plasmalogen level

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