

bibliographic references it is suggested that the following form be used: "Bull. Mt. Desert Is. Biol. Lab., 1934, p   ")

## THE GROWTH OF CANCEROUS CELLS IN EGG ALBUMIN

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The malignant cells of the spontaneous mammary gland cancers of the mouse grow in hanging drops of white of egg ( $\Delta -0.43^{\circ}\text{C}$ .; pH 9.2) in such a way as to form an extensive thin membrane surrounding the explant, and spreading out onto the coverglass.

The white of egg medium inhibits the growth of the macrophages and of the stroma of the tumor so that most of the tissue cultures contain growths of only malignant epithelial cells.

The egg albumin medium can be removed from the growth by bathing it with Locke's or Tyrode's solution. This procedure leaves the malignant cells free from other substances.

Egg albumin proved to be a favorable medium for the growth of carcinoma cells but not of sarcoma cells.

Yolk of egg and mixtures of yolk and white of egg inhibited the growth of malignant cells, of stroma cells and also of normal cells.

## THE GROWTH OF CARCINOMA CELLS IN DILUTED MEDIA

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The malignant cells of the spontaneous mammary gland carcinoma of the mouse exhibited growth in media having a wide range of osmotic pressure ( $\Delta -0.63^{\circ}\text{C}$  to  $\Delta -0.3^{\circ}\text{C}$ ).

The spontaneous tumors appearing in mice of four different strains were studied. All of them grew when explanted into chicken plasma and into diluted forms of plasma. The ratio of dilutions of plasma with distilled water were 1 to 4, 2 to 4, 3 to 4, and 4 to 4.

The growths which took place in a medium of chicken plasma to which had been added equal parts of distilled water were frequently as extensive as those in undiluted chicken plasma; in some instances, however, the growths in the diluted media had fewer cells undergoing mitotic division than those in the undiluted medium.

It has been found that chicken blood has a freezing point of  $-0.63^{\circ}\text{C}$  (Bialazewicz) to  $-0.59^{\circ}\text{C}$  (Howard) which would be equivalent to about 1.07 to 1 per cent sodium chloride solution. Chicken plasma diluted with equal parts of water is equivalent to 0.53 to 0.5 per cent salt solution which would have a freezing point of approximately  $-0.3^{\circ}\text{C}$ .

## LIVING MALIGNANT SARCOMA CELLS

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The living malignant cells of five different rat sarcomas, Nos. 10146, 1548, 4337, and 4338, kindly supplied by the Institute for