

those existing between the cell and its surroundings. So much for a theory of action which has received the support of a number of investigators.

In the "point heat" theory of Dessauer, it is imagined that the tissues are locally heated to very high temperatures, the heated volume being, of course, very small compared to the total volume of tissue.

Other investigators are concentrating on the changes produced in the colloidal constituents of the cell; the time elapsing between irradiation and the appearance of any obvious changes in the colloids presents, at least, a suggestive parallel with the latent period already mentioned.

In discussing theories of action we must bear in mind the fact that there are grounds for considering that one single theory of action could hardly carry the full burden of experimental facts. Consider for a moment the well known fact that a cancerous growth, embedded in the tissues of the body, often disappears when suitably irradiated with X-rays. The main symptoms following such treatment are (a) inflammation in the skin, (b) diminution in the size of the tumour, (c) cessation of pain. It is hardly rational to ask for one single theory of action which will include such widely different effects. The animal itself provides a complex which refuses to be reduced to simple terms. We are, however, in possession of a great volume of precise information relating to the effects, both qualitative and quantitative, on living tissues, and particularly is this so when we consider the biological effects of X-radiation on the unit of living matter, *i.e.*, the cell.

(Part II will follow in the next issue.)

EDITORIAL NOTE

CERTAIN of the articles in the last issue were unsigned, as are some in this. Many correspondents and others, local or beyond the reach of direct retaliation, have intimated, courteously or otherwise, that the authorship is obvious. Some others whilst, naturally, admiring the matter and style, have not placed the authors, and think it would add to the interest if all articles were signed. So as to clear the matter up and avoid the responsibility being loaded on to the shoulders of innocent people, this definite announcement is now made.