SHORT SCIENTIFIC NOTES

Effect of Beryllium Sulfate on the Incorporation of ^{32}P into *Limnaea* (Molluse) Embryos

Chèvrement and Firket[1] have found that beryllium sulfate inhibits the growth of the cultures in case of connective tissue and skeletal muscles (chick embryos) and presumed it to be an inhibitor of enzymes concerned with phosphorus metabolism and probably nucleoprotein metabolism.

This report communicates the peculiar way in which $H_3{}^{32}PO_4$ (350 μ c) incorporates into TCA-insoluble part of beryllium-treated *Limnaea* embryos. The implication is quite interesting since it is known[2] that ^{32}P incorporates mainly into nucleic acid part of the system. In the early embryonic stages of the species, from uncleaved stage to mid-trochophore stage there is a marked suppression of incorporation as a result of the salt action. The suppression reaches a peak in the advanced morula stage, thereafter there is a fall in the rate of suppression of incorporation resulting in the stimulation of incorporation from the moving advanced trochophore stage. Equal number of eggs were taken for comparison of incoporation. Counts of TCA precipitate portion of eggs were taken in an ordinary Geiger counter.

Unlike Actinomycin which suppresses DNA-primed RNA synthesis by forming a complex with the guanine-moiety of the double-standard DNA[3] there is stimulation of ^{32}P incorporation from late trochophore stage. It may be assumed from this preliminary study that the salt cannot suppress but stimulates the nucleic acid synthesizing machinery from the late trochophore stage which is definitely known as the site of maximum RNA synthesis[2].

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1. Chèvrement, M. and Firket, H., *Nature*, 1951, **167**, 773.
2. Brahmachary, R. L., Banerjee, K. P. and Basu, T. K., *Experimental Cell Research*, 1968, **51**, 177.
3. Hamilton, L. D., Fuller, W. and Reich, R., *Nature*, 1963, **198**, 538.