

tion of the maternal structural gene would then result in the production of a maternal type of globulin in the hybrid embryo, and there would be complete reciprocal differences (the class 1 crosses above). If the "inducer" is recognized by the "repressors" on both maternal and paternal genomes then both paternal and maternal globulins or some intermediate protein could be produced and no reciprocal differences observed (the class 3 crosses). If the "inducer" is preferentially recognized or has higher affinity for the maternal "repressor" then a reciprocal difference may still arise (the class 2 crosses).

The maternal similarity is not an inherent property of a particular "repressor" because in the cross of for instance JI 774 and JI 261 there were marked maternal similarities, but none was observed when JI 774 and JI181 were crossed. It is therefore a function of the inter-relationship of "inducer" and the two "repressors". The "repressor" loci in any two varieties of *Pisum sativum* would be assumed to have nearly identical base sequences but the differences must be sufficient to enable discrimination between them.

The explanation of maternal similarity in maize¹, that gene activation occurred in the egg or during oogenesis but not during spermatogenesis, does not agree with my results. The presence of different classes of crosses in *Pisum* demonstrates that differential activation is a function of the relationship of particular genotypes, and not solely dependent on whether an allele has been introduced through the egg or sperm.

All loci in the embryonic genome do not behave in the same way; a locus affecting chlorophyll degradation in the cotyledon has not shown maternal similarity in any of the present crosses. Again, some crosses which showed no reciprocal differences for globulins did show them for seed size. The concept of a discrimination between maternally and paternally derived chromosomes is well recognized in the inactivation of the whole paternal genome in male mealy bugs², and in the inactivation of the paternal X chromosome in the female kangaroo³. Asynchronous activation of specific maternally and paternally derived structural gene loci is also known in interspecific fish hybrids⁴. Further studies of the mechanisms involved in the control of seed characters is of particular relevance in view of the economic significance of factors such as seed size and seed protein, and the concept of the controlling role exerted by the maternal parent has important implications.

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Erratum

In the article "Chemotherapy for an Elective Effect on Mammalian Tumour Cells" by T. Alderson (*Nature new Biol.*, **244**, 3; 1973) the last sentence in paragraph 8 should read "Replication of these RNA tumour viruses seems to occur in two phases, $RNA \rightleftharpoons RNA$ and $RNA \rightleftharpoons DNA$ ", and the last sentence in paragraph 10 should read "Comparatively little or no effect is to be expected on the non-tumorous cell, which is not thought to use $RNA \rightarrow RNA$ or $RNA \rightarrow DNA$ transcription".

Corrigendum

In the article "Mechanism of Action of Pancreozymin and Acetylcholine on Pancreatic Acinar Cells" by O. H. Petersen (*Nature new Biol.*, **244**, 73; 1973) the arrows were omitted from the figure. The corrected figure is reprinted below.

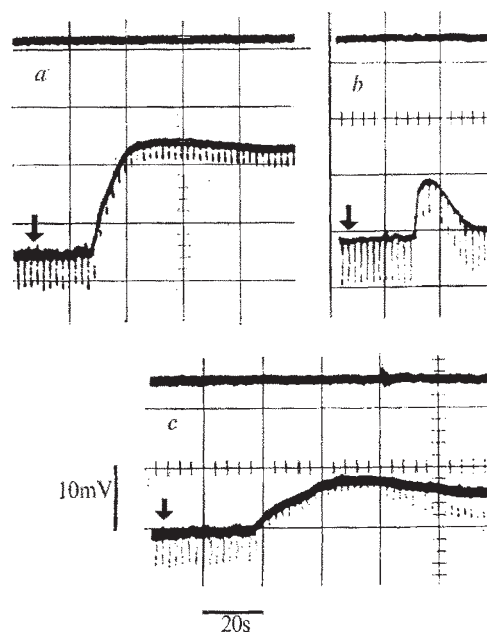


Fig. 1 Effect of ACh and pancreozymin on membrane potential and resistance. The distance between the two heavy lines corresponds to the membrane potential. The short vertical bars are membrane potential displacements caused by hyperpolarizing current pulses of constant strength (10^{-9} A) and 70 ms duration sent through the recording electrode. The arrows indicate addition of stimulant to the tissue bath. The volume of the bath was 25 ml and the flow of Krebs-Henseleit solution through the bath was 6 ml min^{-1} . In (a) $100 \mu\text{g}$ ACh was given. In (b) $10 \mu\text{g}$ ACh was added to the bath. In (c) 4 units (Crick) of pancreozymin (Sigma) was given.

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