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Film: Laboratory transmission of mosquito-borne viruses

The film illustrated methods of handling virus-infected mosquitoes in the laboratory.

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A technique for sectioning mosquitoes and other arthropods without using ethyl alcohol or xylene

Fix the whole insect, or dissected tissue, in Duboscq-Brazil for at least 24 hours at 30°C.

Transfer to Supercedrol (G. Gurr, London), for 24 hours. Specimens may be stored in this solution for long periods.

Embed in Paraplast (Shandon Scientific Co., London), preferably 3 hours in a vacuum bath. Paraplast has many advantages over ordinary wax.

Note.

After clearing in Supercedrol, proceed as follows:—

Coat a square coverslip with melted paraffin.

Place a large drop of 4-5% solution of celloidin dissolved in methyl benzoate in the centre of the waxed coverslip, and with a camel-hair brush carefully orientate the insect. Flood the coverslip with benzol to gel the celloidin (one hour).

Paraplast is a rigidly controlled mixture of highly purified paraffin and several plastic polymers of regulated molecular weights.

VIROLOGY

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In vitro* culture of cells from liver of wall lizard, *Lacerta muralis

During the last few years, there has been an increasing interest in the cell culture of tissues from various lower vertebrates and the possibility of growing viruses in them (SOMOGYIOVA and ŘEHAČEK, 1965). SOMOGYIOVA (1964) cultured cells from the liver, kidney, testes and embryos of various reptiles, including the green lizard, *Lacerta viridis*. Somogyiová and Řehaček were able to obtain multiplication of tick-borne encephalitis (TBE) virus in cells from the liver, kidney, testes, ovary and embryos of the slow worm, *Anguis fragilis*. The virus did not, however, multiply in cell cultures of these organs from snakes.

We have successfully cultured cells from the liver of the wall lizard, *Lacerta muralis*, in a medium containing Hanks's salt solution with 0·5% lactalbumin hydrolysate and 20% foetal calf serum. Tubes were kept at 27-29°C. In primary cultures, both epithelial-type cells and fibroblast-type cells could be seen, but subcultures consisted almost exclusively of fibroblast-type cells. Mitoses were seen for up to 37 days in a primary culture.

In preliminary experiments, Quaranfil virus (an ungrouped arbovirus) multiplied in the cells without any cytopathic effect, but Langat virus (a Group B arbovirus) did not.

REFERENCES

SOMOGYIOVA, J. (1964). *Biologia*, **19**, 257.
——— & ŘEHAČEK, J. (1965). *Acta virol.*, **9**, 286.