

### Purification and Properties of Mouse Interferon

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Interferon from Mouse E. Ascites cells was purified to a specific activity of  $1.5 \times 10^9$  NIH ref. units per mg protein. After neuraminidase treatment, the highly purified Interferon banded as a single activity peak at pH 8.8 on electrophoresing, whereas untreated interferon showed several peaks between pH 5.4 and 7.2. On SDS-poly-acrylamide there were 2 components, interferon with a MW 23,000d (60%) and a major contaminant with a MW 65,000d (40%). Ultracentrifugation showed one single activity peak with a MW of 20,000d.

In this interferon preparation we detected a specific endonuclease activity which was associated with interferon throughout the purification. The activity peaks of interferon and endonuclease were not separated on sucrose gradients under the conditions used. This endonuclease degrades in our assay system mRNA of L-cells, EMC virus and reovirus, but not mouse tRNA Val and E. coli tRNA<sub>2</sub><sup>Gln</sup>, poly-U and dsRNA (W. D. Graziadei III et al., 1973).

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### Reiteration Frequency of Mammalian Histone Genes

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Mammalian histone messenger RNA has been isolated from mouse and human (HeLa) cell lines and investigated employing DNA-RNA hybridization techniques. Criteria of early appearance in the cytoplasm, in the case of mouse, and preferential synthesis during early S phase of HeLa,

in addition to cytosine arabinoside sensitivity have allowed the characterization and isolation of a RNA population of 150,000–200,000 daltons molecular weight of a high specific radioactivity. Hybridization experiments in vast DNA excess to the homologous DNA have suggested a reiteration frequency of less than forty for each histone gene per haploid genome; in human over ten copies are indicated. Moreover, we have observed hybridization of the mammalian RNA to purified histone DNA of sea urchin indicating a 5–10% homology.

### Conversion of Cell Type in Lens Regeneration in Adult Newts

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Although a number of descriptive evidence is available for conversion of iris epithelial cells into lens cells, experimental evidence for the conversion so far obtained does not exclude the possibility of participation of cells from the iris stroma in lens formation. Since the iris stroma contains a large number of cell types whose state of differentiation is mostly not well characterized, the above situation creates ambiguity in interpreting the alleged cell type conversion. The reported fact that the newt dorsal iris epithelium cultured in the presence of retina of frog larvae produces lens tissue supported strongly conversion of epithelial cells into lens cells. The further works have been done to assess the extent of contamination of the sample of dorsal iris epithelium by non-epithelial cells, to study the ability of dorsal iris stroma to produce lens tissue in vitro in the presence of frog retina, and to test the authenticity of lens tissue produced by iris epithelium in vitro by specific immunofluorescence. The results exclude participation of cells from the stroma in production of lens tissue and demonstrate that the iris epithelial cells of adult newts, which are fully differentiated and completely withdrawn from cell cycle become dedifferentiated and converted into lens cells.

## PRAEMIA

### RUZICKA-Preis 1974

Aus dem Fonds für den Ruzicka-Preis wird alljährlich einem jungen Forscher für eine hervorragende veröffentlichte Arbeit auf dem Gebiete der allgemeinen Chemie, die entweder in der Schweiz oder von Schweizern im Ausland

ausgeführt wurde, ein Preis erteilt. Kandidatenvorschläge können bis spätestens 29. Juli 1974 dem Präsidenten des Schweizerischen Schulrates, ETH Zürich, Rämistrasse 101, 8006 Zürich, unterbreitet werden.

## CONGRESSUS

### Austria

#### 1st International Congress on Human Ecology

in Vienna 15–19 September 1975

With regard to the extent of the problems involved in 'Relation between Man and his Environment', the Executive Committee is opening the Congress with a preparatory comprehensive discussion between the different groups of specialist. This written exchange of ideas between members of the different discussion groups

should serve to orientate the particularly interesting points in human ecology. The appropriate instructions should be requested from:

Dr. Helmuth Knötig, Secretary of the Board of the 1st International Congress of Human Ecology, Karlsplatz 13, A-1040 Wien (Austria).