reason to believe that even though its growth factor requirement could not be determined, this strain belongs to the same physiological class of mutants as do the strains 975-NG-24 and 975-NG-111 which correspond to the definition given for osmotic remedial mutants[2].

It is assumed that the transfer of osmotic remedial, mutant cells into media containing high concentrations of glycerol or glucose causes the activation of a mutationally altered, inactive enzyme. NOSAKI and TANFORD[5] have shown that β-lactoglobulin, in concentrated solutions of ethylene glycol, tends to unfold, thus exposing its hydrophobic but not the peptide groups to the solvent. This type of unfolding, induced by glycerol, could account for the activation of the osmotic remedial enzyme if one assumes that the amino acid replacement in its polypeptide chain resulted in a more compact structure which precludes catalytic activity. The mutant enzyme of osmotic sensitive strains could undergo a similar change in concentrated glycerol solutions. But in this case the unfolding is accompanied by a reduction of activity.

Zusammenfassung. Das Wachstumsverhalten zweier Klassen von Mutanten der Spalthefe *Schizosaccharomyces pombe* in Medien hoher Osmolarität wird beschrieben. Das Wachstum der einen Mutantenklasse wird in solchen Medien gefördert und das der andern gehemmt.

R. MEGNET

Institut für allgemeine Mikrobiologie der Universität Bern (Switzerland), January 4, 1966.

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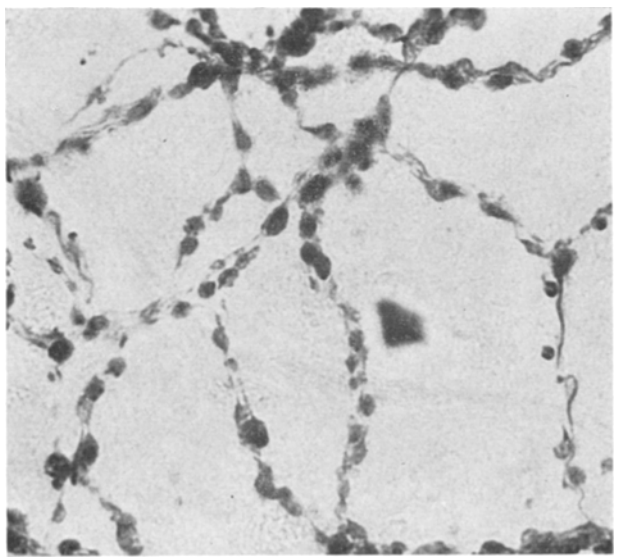
Adrenergic and Cholinergic Axons in the Mouse Iris

In the dilator pupillae, which was formerly regarded as purely sympathetically innervated, a dense network of cholinergic fibres has recently been demonstrated[1,2]. Moreover, the adrenergic and cholinergic fibres could be shown to run concomitantly in the Schwann cell strands of the autonomous ground-plexus, demonstrating morphological foundations for a peripheral interaction between the two types of vegetative nerves[1,2]. The observation that there is generally only one adrenergic fibre in each strand of Schwann cells in the mouse iris[3,4] has opened a simple way of demonstrating directly to what extent adrenergic nerve fibres are accompanied by non-adrenergic axons.



Mouse iris, whole mount. Methylene blue stain. Virtually every strand of the ground-plexus contains two or more varicose axons. × 1250.

The adrenergic fibres were demonstrated in whole-mounts of the mouse iris with the fluorescence technique of FALCK and HILLARP[5], cf. also [2]. The total number of axons in the iris was shown with methylene blue staining[2,6].

It was confirmed that, in the mouse, the majority of the Schwann cell strands of the dilator region contained only one adrenergic axon (cf. [3,4]). In the methylene blue stainings, most of these strands contained several beaded axons (Figure) while only a few isolated axons could be seen. Care must be taken to ensure perfect staining, since otherwise the axons will either be obscured by non-specific staining of the Schwann cells, or none at all or only one axon will appear in the Schwann cell strands.

Since there is no reason to believe that sensory fibres run in the vegetative ground-plexus in any significant number, the results excellently corroborate the earlier finding of concomitant adrenergic and cholinergic fibres in the iris[1,2,7].

Résumé. Par la comparaison entre la somme totale des fibrilles nerveuses et celle des fibres adrénergiques des cellules de Schwann de l'iris de la souris, il se confirma que les fibres adrénergiques et cholinergiques terminales sont ici en grande partie concomitantes.

B. EHINGER and
B. GUSTAFSSON-SPORRONG

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