

Schweizerische Gesellschaft für Mikrobiologie *Berichte der 42. Jahresversammlung*

Société Suisse de Microbiologie *Comptes rendus de la 42^e réunion annuelle*

Società Svizzera di Microbiologia *Rendiconti della 42^{ma} sessione annuale*

Swiss Society of Microbiology *Reports of the 42nd annual meeting*

Fribourg, 9–11 June 1983

The Society Prize 1983

The Society Prize has been allocated to Dr Rosmarie Honegger, Institut für Pflanzenbiologie, University of Zürich, in recognition of her contribution to the problems of symbioses between 'algues and fungi'.

Main lectures

Prof. Dr W. Bredt, Institut für allgemeine Hygiene und Bakteriologie, Universität, Freiburg i.B., Federal Republic of Germany: 'Mycoplasmata – Prokaryonten mit besonderen Eigenschaften.'

Prof. Dr J. Bové, Laboratoire de biologie cellulaire et moléculaire, Université, Bordeaux, France: 'Les Spiroplasmata, un nouveau groupe de mycoplasmes pathogènes des végétaux, animaux et insectes.'

Dr F. Catalan, Institut Alfred Fournier, Paris, France: 'Diagnostic dans les clamydioses humaines.'

Round table discussions

Conclusions from the 'Round table discussions' held at the 1983 annual meeting of the Swiss Society of Microbiology.

Lectures

Mycoplasmata – prokaryotes with peculiar properties

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Microorganisms of the *Mycoplasma* group are characterized by the lack of cell wall, the limited genome and their small size. There are certain biological consequences of these properties. Due to the lack of cell wall the cytoskeleton actively determines the cell shape. The configuration of membrane surface proteins is influenced by factors like fluidity or membrane potential. Lateral clustering ('capping') seems possible. Being obligate parasites the mycoplasmas possess efficient adherence mechanisms. In *Mycoplasma pneumoniae* the binding site was characterized as membrane protein of 190 kD localized on the tip structure. The limited genome size (5×10^8) results in requirement for preformed substances (cholesterol, fatty acids, nucleic acid precursors). They are prob-

ably at least in part obtained actively from the host by certain mechanisms (e.g. by nucleases). In the interaction with the host organism the intensity of clinical symptoms is to certain extent determined by the host's defence reaction. Especially immunological processes seem to contribute to the occurrence of disease.

Round table discussions

Conclusions from the round table discussions held at the 42th annual meeting of the Swiss Society of Microbiology.

Laboratory diagnostic of *Mycoplasma* and *Ureaplasma* infections

The following points were discussed:

- Procedures to be followed for isolation attempts of Mycoplasmas and of Ureaplasmas: choice of the adequate specimens; techniques to be used for their collection and their transport; use of a transport medium; choice of culture media; interpretation of results.