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BOOK REVIEW

SCHWEIGER, H. G. (ed.): *INTERNATIONAL CELL BIOLOGY 1980–1981*. — Springer-Verlag, Berlin–Heidelberg–New York 1981. 1033 pp. Cloth DM 128.—, approx. US \$ 61.00.

Modern studies in cell biology have benefited greatly from healthy infusions of molecular biology and genetics as complementary approaches to the more usual biochemical and microscopical analyses. This is well demonstrated in the reviewed book, which is a record of papers presented at the Second International Congress on Cell Biology, Berlin 1980. The introductory lecture by H. Haris presents an interesting overview of what has been done in Berlin (where the Congress took place) in the field of cell biology and other related sciences. The names as Virchow, Correns, Koch, Ehrlich, Krebs represent only few of those who worked in this city. The first part of the Proceedings, under the headings : Genomes and Gene Expression, includes papers on the structure of DNA in chromatin, on the higher order structure of chromosomes, on the nuclear matrix and on interaction of eukaryotic ribosomes with messenger RNA *etc.* The problems of intracellular transport, *e.g.* chromosome transport during mitosis, transport of material along the axon of nerve cells, granule transport in pigment cells *etc.* are covered in section II under the heading: Cytoskeleton. This section is followed by papers on pathology and pathogenicity (section III), including data on surface determinants in American Trypanosomas, genetic disorders of Cilia, Raus sarcoma virus transformation and on the molecular control of disease resistance in plants. Plants are also the experimental material in some of the papers presented in section IV: Differentiation and Development, *e.g.* dealing with the polarity changes and tissue organization and with the role of ion currents in establishing developmental gradients, and in section V: Membrane and Cell Surfaces, which contains papers on the microbodies (peroxisomes) in soybean root nodules, and a paper demonstrating that the recognition between plant cells and microbes is regulated by complex carbohydrates. The concluding part of the book: Functional Organization, stresses the use of plant protoplasts for cell biology studies, *e.g.* in papers on selection of somatic hybrids in plants, organelle segregation in somatic cybrid and hybrid plants, enucleation of garlic protoplasts by means of cytochalasin B and centrifugation.

This book is a comprehensive interdisciplinary reference book, which combines recent advances with earlier work.

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