lected illustrations and tables and provides a fresh look at a complex biological problem.

The relationships of extracellular matrix to development is the theme of a chapter by Reddi that briefly recapitulates the history of the subject and its model systems. Some of this material is more thoroughly covered in earlier chapters, and the remainder is more of an informational survey than an incisive analysis.

The book ends with a discussion of genetic and acquired disorders of collagen deposition by Krane. The study of genetic disorders is progressing rapidly, and the chapter does not cover some recent insights. Nevertheless, Krane's commentary and analysis should serve as important guides for investigators.

In summary, the Piez and Reddi book is an important addition to the literature on extracellular matrix. It can be recommended to neophytes and to experts.

The contributions to the volume edited by Trelstad consist mainly of brief reviews, many of them old hat, all written by major figures. There is overlap with the Piez and Reddi volume in the treatment of collagen, fibronectin, and proteoglycans. The most exciting parts of this volume are those devoted primarily to new information; of note are a chapter describing anchorins and a chapter on the analysis of basal laminae by the use of monoclonal antibodies.

Anchorins are defined by von der Mark and associates as a class of membrane proteins involved in cell-matrix interactions. One of these proteins, found on rat myoblasts, seems analogous to that described as a laminin receptor on other cells. Interestingly, the myoblast protein, when solubilized in detergent, showed low affinity and limited specificity for laminin, but these properties were significantly improved upon insertion of the receptor into liposomes. Similar results were found by this group when a collagen-binding protein was isolated from chondrocytes. Both receptor proteins, which differ in size, were purified to homogeneity and antisera were then raised against them. Immunolocalization studies showed that the receptors were present on cell surfaces. Such definitive studies usher in a new era for the investigation of cell-matrix interactions.

Linsenmayer, Fitch, and Mayne have used monoclonal antibodies to map type IV collagen domains, to examine the immunoreactivity of type IV collagen in situ and during development, and to describe basal lamina heterogeneity revealed by monoclonal antibodies directed against both type IV collagen and lens capsule. A crisp, incisive interpretation of the data, clearly noting their limitations, is provided by the authors. A major point of the interpretation is that some basal lamina show immunologic constancy whereas others manifest great diversity and the difference must reflect differences in matrix composition or assembly.

One predominant theme in the book is that there are many types of interactions between cells and matrix and that virtually all of the known matrix molecules participate in such relationships, especially during development. Furthermore, the studies describing regeneration of the neuromuscular junction predict that biologically active components of the matrix, of unknown nature, are vital in such regeneration.

Though this compendium will be of value to some developmental biologists as a reference, I do not believe it is an important addition to most bookshelves.

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Mistletoes

The Biology of Mistletoes. MALCOLM CALDER and PETER BERNHARDT, Eds. Academic Press, Orlando, Fla., 1983. xiv, 348 pp., illus. $49.

Ideas concerning the systematics of those groups of plants that in Anglo-Saxon countries are referred to as mistletoes have changed considerably in the last couple of decades. No longer is the term equated with a single family, Loranthaceae; instead (depending on who is being consulted), there are two to four families involved, with perhaps a couple of genera from Santalaceae thrown in. Such changing and diverging attitudes are a reflection of a great deal of recent scientific attention paid to these unusual plants. Thus Calder and Bernhardt's *The Biology of Mistletoes* is timely in drawing the attention of the botanical world to past and current work in at least the two largest families, Loranthaceae s.s. and Viscaceae. It is unfortunate, however, that virtually no reference is made to Misodendraceae; similarly, the other purely American family, Eremolepidaceae, receives no attention except for a brief discussion of its systematic status.

The 17 chapters present a great variety of topics, including biogeography, embryology, fruit and floral biology, and various aspects of physiology. The contributions are a little uneven in the sense that some represent very recent work whereas others could have been (or were) written 20 years ago with essentially the same content and conclusions. In the first category are the various Australian contributions, among which Barlow's integration of mistletoe systematics with plate tectonics especially merits attention. In the second category are the two chapters on embryology, which are very much of the *déjà vu* type; among other things, the tiresome subject of the "*Psittacanthus*" *cuneifolius* endosperm, the existence of which has led to doubts concerning the lack of endosperm as a generic character, is once again raised, notwithstanding published evidence showing the species to be quite unrelated to *Psittacanthus*. In fact, there are such failings in several chapters: factual and interpretative errors that could have been largely eliminated by more stringent editing.

A great deal of attention is paid to issues involving species from Australia, an emphasis that, I think, is justified because of active work there in the last decade and that will counter the opposite bias of older literature.

The book should be successful in stimulating further interest in these unusual plants. The authors and editors must feel frustrated by the lax advertising; the only announcement I have seen arrived some months after the book's appearance.

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Books Received

Advances in Petroleum Geochemistry. Vol. 1. Jim Brooks and Dietrich Welte, Eds. Academic Press, Orlando, Fla., 1984. x, 344 pp., illus. $49.50.

AIDS. A Basic Guide for Clinicians. Peter Ebbesen, Robert J. Biggar, and Mads Melby, Eds. Munksgaard, Copenhagen, 1984. 313 pp., illus. $40.

Analysis of Foods and Beverages. Modern Techniques. George Charalambous, Ed. Academic Press, Orlando, Fla., 1984. xviii, 654 pp., illus. $82.

The Analysis of Time Series. An Introduction. C. Chatfield. 3rd ed. Chapman and Hall, London, 1984 (U.S. distributor, Methuen, New York). xiv, 286 pp. Paper, $17.95.

Annual Review of Astronomy and Astrophysics. Vol. 22. Geoffrey Burbidge, David Layzer, and John G. Phillips, Eds. Annual Reviews, Palo Alto, Calif., 1984. x, 635 pp., illus. $44.

Annual Review of Phytopathology. Vol. 22. Raymond G. Grogan, George A. Zentmyer, and Ellis B. Cowling, Eds. Annual Reviews, Palo Alto, Calif., 1984. xii, 487 pp., illus. $27.

Applications of Picosecond Spectroscopy to Chemistry. Kenneth B. Eisenthal, Ed. Reidel, Boston, 1984 (distributor, Kluwer Boston, Hingham, Mass.). xii, 363 pp., illus. $59. NATO ASI Series C, vol. 127. From a workshop, Acquafredda di Maratea, Italy, June 1983.

Asian Marine Biology 1. The Marine Biological Association of Hong Kong. Hong Kong University Press, Hong Kong, 1984. xvi, 175 pp., illus. Paper, $20.

Aspects Psychosociaux de la Dépression en Sortir?