Methods and Achievements in Experimental Pathology

The Cytoskeleton in Normal and Pathologic Processes

Cell Biology

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Preface

During the last few years, a great deal of work has been devoted in many laboratories to the study of structures responsible for maintenance of cell shape, intracellular movement and cell locomotion. It has been shown that such structures are similar in a wide variety of cell types and consist of contractile proteins such as actin and myosin and cytoskeletal elements such as microtubules and intermediate (100-Å) filaments. A large literature has been published on the structure and function of contractile and skeletal cell elements including reviews and symposia. Clearly, the alterations of shape, cytoplasmic movements and locomotory activity in single cells must result in pathologic changes of the affected organs or tissues and, indeed, in few instances, a relationship between the presence of modifications at the level of contractile and/or skeletal elements and pathologic changes has been shown. Research on cytoskeleton-mediated pathologic changes is very young and it is easy to anticipate that in a not distant future, several pathologic manifestations will be related to alterations of contractile or skeletal cell elements. The purpose of this book is on the one hand to collect the most recent advances in the field of the function of cytoskeleton and, on the other hand, to emphasize some of the recent advances in the correlation between modifications of contractile and skeletal elements and morbid changes in animals or humans. We hope that this approach will stimulate further fruitful research on the role of contractile and skeletal structures in pathologic processes.

Giulio Gabbiani

The Cytoskeleton in Normal and Pathologic Processes

Cell Biology

The papers with emphasis on *'Cell Biology'*, appearing under the title 'The Cytoskeleton in Normal and Pathologic Processes – Cell Biology' are published in this volume.
The papers with emphasis on *'Cell Physiopathology'*, appearing under the title 'The Cytoskeleton in Normal and Pathologic Processes – Cell Physiopathology', are published in vol. 9 of the series (see table of contents on p. IX).

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The Cytoskeleton in Normal and Pathologic Processes

Cell Physiopathology

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The Cytoskeleton and Cell Movement: General Considerations

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