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BOOK REVIEW

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## Proteasome Inhibitors in Cancer Therapy

(J. Adams (ed.), Humana Press, Totowa-New Jersey, 2004, 313 p., \$155.0)

Since the beginning of 1990s, good evidence has existed indicating that proteasomes play an important role in metabolism of intracellular proteins. The key phenomenon that “recruited” many researchers to this problem was discovery of proteasome inhibition accompanied by stabilization of numerous cellular proteins and their returning from apoptotic state under tumor process to normal turnover corresponding to their metabolism in a normal cell. This observation stimulated numerous studies for treatment of malignant transformation.

The book consists of four parts containing 22 chapters.

The first part includes one chapter that gives an overview on the problem of drugs for chemotherapy of cancer.

The second part contains seven chapters dealing with chemistry and cell biology of proteasomes. They consider such problems as cellular and structural organization of proteasomes, characterization of natural and synthetic

proteasome inhibitors, and the role of proteasomes in regulation of cell cycle, apoptosis, and other important cell events.

The third (and largest) part of this book gives description of various approaches used for application of proteasome inhibitors for treatment of cancer. Special chapters describe the action of such inhibitors as anthracyclines, bortezomib, and cisplatin.

The fourth part includes 4 chapters that describe results of clinical trials of proteasome inhibitors for treatment of various malignant transformations (e.g. myeloma). Many of these trials employed bortezomib used as the only inhibitor or in combination with standard therapy.

This book will definitely attract attention of a wide audience of researchers studying the problems of malignant transformation and cancer therapy. This book will be also useful for biochemists, molecular and cell biologists, biopharmacologists, and biotechnologists.

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