Wilson, J.W., Booth, C., Potten, C.S. (ed.): **Apoptosis Genes.** - Kluwer Academic Publishers, Boston - Dordrecht - London 1998. 310 pp. NLG 290.00. ISBN 0-412-83860-5.

In the recent years, apoptosis (the programmed cell death) has stood up to the lime light in biological research. It is mainly because of its fundamental importance in the embryogenesis and tissue homeostasis in adult animals. Further it is also important in the removal of cells with damaged DNA or infected by viruses. It also serves for the removal of auto-reactive immune cells. Thus, disturbation of the apoptotic process in an organism could produce abnormality, disease and death. A key for our understanding apoptosis is hidden among the genes and their protein products that control the complicated sequence of events of this process. This book presents a current overview of key genes involved in the control of apoptosis and provide the thoughts on the future prospects and potential in clinical applications of this fastly developing field.

The book consists of 10 chapters. After "Introduction", "The role of *p53* in apoptosis" follows. It describes the *p53* tumour suppressor gene with regard to its functional domains and its role in the induction of apoptosis in some tumour cell types. The recent developments in *p53*-mediated apoptosis are discussed with regard to cancer therapy. Chapter 3: "Mammalian *bcl-2* family genes" describes all the members of this large gene family and their anti-apoptotic or pro-apoptotic role, mechanism of action of Bcl-2, regulation of Bcl-2 related proteins, and the role of family members in cancer. Chapter 4: "Stress-responsive signal transduction: emerging concepts and biological significance" deals with the effects of external factors such as ionising radiation, UV or growth factor deprivation on multiple signal transducers comprising protein tyrosine kinases, protein kinase C, Raf-1 pathway, mitogen-activated protein kinases, *etc.* Chapter 5: "Control of apoptosis through gene regulation" describes the effects of cytokines in survival and apoptosis of cells. Individual transcription factors are treated in a detail. Chapter 6: "Adhesion and apoptosis" is devoted to the mechanisms of adhesion-mediated apoptosis. The role of integrins is described with regard to signalling pathways leading to apoptosis. Attention is paid also to crosstalk between growth factors and integrins. Chapter 7: "Death signalling in *C. elegans* and activation mechanisms of caspases" shows on the model of *Caenorhabditis elegans* the details of apoptosis at the level of whole organism. Chapter 8: "Apoptosis in *Drosophila*" describes the specific genes involved in apoptosis in *Drosophila.* Chapter 9: "Viral genes that modulate apoptosis" is concentrated on viral-induced programmed cell death. Examples of individual viruses are given together with the role of apoptosis in viral pathogenesis. Chapter 10: "Therapeutic manipulation of apoptosis in cancer and neurological disease" discusses molecular approaches to cancer treatment using manipulations of apoptosis with the aid of several therapeutic procedures.

The vast amount of information is given in condensed form in this book and apparently will attract wide array of readers both in theoretical and clinical research.

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