
BOOK REVIEW

Cytokine Inhibitors

(G. Ciliberto and R. Savino, eds., Marcel Dekker, Inc., New York–Basel, 2001, 392 p., \$165.00)

Cytokines attract considerable attention of various researchers working in different fields. This is quite understandable because this group of proteins secreted by lymphocytes and monocytes is involved in the control of cell proliferation and differentiation, regulation of the immune response, hemopoiesis, and inflammatory reactions.

This book consists of 12 chapters written by 25 recognized experts from different countries.

Chapter 1 (written by C. Dinarello and G. Fantuzzi) deals with the role of interleukin-1 β -converting enzyme in the pathology developed by cytokines 1L-1 β and 1L-18 exerting inflammatory effect.

Chapter 2 (by S. van Deventer and T. van der Poll) is about interleukin-10. This cytokine possesses multiple anti-antiinflammatory effects and some proinflammatory activity. This chapter describes regulatory mechanisms of interleukin-10 formation, modeling of its biosynthesis in animals. Special attention is paid to human diseases characterized by increased interleukin-10 and employment of interleukin-10 in clinical practice for the therapeutic treatment of such pathologies as Crohn's disease, rheumatoid arthritis, etc.

Chapter 3 (by K. Bendtzen et al.) contains data on natural and inducible anticytokine antibodies in humans. In some cases cytokine antibodies neutralize cytokine *in vivo*; however, they can also act as cytokine carriers prolonging cytokine effects *in vivo*.

Chapter 4 (by E. Hittary and T. Schaible) summarizes data on the employment of the antitumor factor for the treatment of Crohn's disease and rheumatoid arthritis.

In chapter 5, R. Murali et al. analyze data on the design and strategy of the medical use of low molecular weight inhibitor of tumor necrosis factor (TNF)- α and also describe general strategy for peptidomimetics design.

In chapter 6, M. Moss et al. summarize data on screening and the design of inhibitors of the enzyme involved in the conversion of TNF- α .

In chapter 7, A. Proudfoot-Fichard et al. characterize cytokine receptors, which represent potential targets for the treatment of HIV-infection. The authors discuss mechanisms of HIV interactions with target cells via CD4-receptor and its complex with chemokines. Chemokines form several families; in humans they include 36 various chemokines. Some chemokines are co-receptors for HIV-binding with the target cells; their modification might represent an effective approach for the prevention of HIV infection.

Chapter 8 (by A. Várnall) deals with receptor antagonists of gp130 signal cytokines. The author analyzes biological activity of gp130 cytokines, structure of their cellular receptors, and approaches to the development of receptor antagonists.

In chapter 9, T. Naka et al. discuss various mechanisms of regulation of cytokine signaling.

Chapter 10 was written by R. Starr, who has analyzed data on the inhibitors of signal transduction kinases and transcription activators.

Chapter 11 (by K. Lipson et al.) summarizes data on the inhibition of vascular endothelium growth factor and stem cell factor for the treatments of human diseases.

Chapter 12 (by R. Gum and P. Young) deals with p38 cytokine inhibitors which block catalytic activity of serine-threonine protein kinases.

Each chapter contains a bibliography. At the end of the book there is an index with page numbers indicating major entries. This book contains many tables, figures, and photographs that help the reader to get better understanding of the discussed topics. This book would be useful for biochemists, pharmacologists, biotechnologists, teachers, and students of biological departments of universities, as well as medical students.

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