

## PREFACE

The articles in these issues of the journal represent papers delivered by invited speakers at the **9th International Symposium on the Immunobiology of Proteins and Peptides**, which was held May 20–25, 1997, in Whistler, British Columbia, Canada. In addition, a few of the abstracts submitted by participants were scheduled for minisymposia and some of the authors, whose presentations were judged by the Scientific Council to be of high quality, were invited to submit papers for publication in this volume.

**The International Symposium on the Immunobiology of Proteins and Peptides** was established in 1976 as a non-profit educational organization devoted to the advancement of the science of Immunology. The purpose of the symposium is to bring together, once every two or three years, active investigators in the forefront of contemporary immunology, to present their findings and discuss their significance in the light of current concepts and to identify important new directions of investigation. The founding of the symposium was stimulated by the achievement of major breakthroughs in the understanding of the immune recognition of proteins and peptides. The founders believed that these breakthroughs would lead to the creation of a new generation of peptide reagents that should have enormous potential in biological, therapeutic and basic applications. This anticipated explosion has in fact since occurred and many applications of these peptides are now being realized.

The 9th conference was devoted to aspects of immunological recognition in autoimmunity and cancer, two major areas resulting from disruption in immune surveillance and regulation. The articles in these issues of the journal are divided by topics into three sections. The first section presents papers that deal with basic and general principles that are important for the understanding of immune recognition and regulation in both autoimmunity and cancer. The second section presents papers that address immunological parameters associated with autoimmunity. What are the initial triggers that stimulate responses to self-molecules in autoimmunity and how are these responses maintained and enhanced? What is the role of the MHC in autoimmune responses? What are the roles of autoimmune T cells and B cells in recognition of self and how do T cells communicate with and activate B cells to produce autoantibodies? How do autoantibodies and autoimmune T cells give rise to autoimmune disease? The elucidation of these questions is crucial for the unraveling of the mechanisms of autoimmune diseases. The understanding of the mechanisms and the underlying molecular and cellular interactions of an autoimmune disease open the way to the design of rational molecular and/or cellular strategies for manipulation of the disease. These important subjects are discussed in detail. Other papers provide examples of selected autoimmune diseases whose mechanisms have been well studied and of immunotherapy of these diseases by auto-determinant peptides. The third section is devoted to the immunology of cancer. It begins with papers dealing with T cell recognition of tumor antigens and the role of the MHC in this recognition. A number of approaches to immunotherapy of cancer based on polypeptides, tumor-associated antigens and antibodies against such antigens are presented. Cytotoxic T cells (CTL) and Dendritic cells (DC) play important roles in responses to molecules associated with malignant cells. Important and promising immunotherapeutic strategies that employ CTL and/or DC have been developed and are discussed in several papers of this section. Finally a round-table discussion among the participants was held at the conference. This discussion was transcribed and an edited text is given at the end of these proceedings. The interchange underscores key principles whose elucidation is important to both autoimmunity and cancer and it also points to intervention strategies that are not entirely unrelated in the two aspects of dysfunction of the immune system.

The 9th conference was organized by the following individuals: M. Zouhair Atassi (Baylor College of Medicine), *Chairman*; Garvin S. Bixler, Jr. (NABI), *Secretary General*, Ettore Appella (NIH/NCI), *Program Committee Chairman*. The Scientific Council included, in addition to these three individuals, the following members: David A. Haffler (Brigham and Womens Hospital), Karl Hellstrom (Bristol-Meyers Squibb), John J. Marchalonis (University of Arizona) and Alessandro Sette (Cytel)

A number of organizations provided generous support for the 9th conference. The following organizations were major sponsors: Bristol-Myers Squibb, American Autoimmune Related Diseases Association, Corixa, Cytel, Schering-Plough Research Institute, Chiron Corporation and Chiron Therapeutics, Ciba-Geigy, Genetics Institute, NABI, Amgen, Pangaea Pharmaceuticals, Anergen and StressGen Biotechnology. Contributions were also received from MedImmune, Bachem, Multiple Peptide Systems, Zeneca, The Immune Response Corporation and Peninsula Laboratory.

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