PREFACE

The study of cell death, or apoptosis, has turned into a very large field. Both the extrinsic and intrinsic cell-death pathways appear to have fundamental importance to tumor progression and cancer therapy. It has become clear that the extrinsic pathway provides a number of mechanisms for host immune surveillance of tumors and their suppression. Because this is a fast-moving area that is generating a huge literature, there is an ongoing need in the scientific community to distill the knowledge and to organize it so that students as well as experienced investigators can both learn it and build upon it.

The chapters comprising Death Receptors in Cancer Therapy have been written by experts in the field of cell-death research, particularly those interested in death receptors and their relevance to cancer and cancer therapy. The basic information about signaling, as well as conservation of the pathways in Drosophila or Caenorhabditis elegans, can be found herein. There is information on the role of death domains and receptors in development, and there is secondary and tertiary structural information about receptors and ligands. One of the important aspects of the text that will be of use for experts is the cross-talk in signal transduction pathways. It is clear that pathways are networked and cross-regulated through other signaling pathways that may be on or off depending on physiological or cellular state. Finally, with a firm foundation in the understanding of the molecular events in cell death, the major emphasis of Death Receptors in Cancer Therapy is on both alterations in cancer as well as therapeutic strategies and combination therapies.

It is important to note that, although there is a great deal of preclinical translational research on death receptors and ligands, the history of drug development is complex and subject to many forces and hurdles. As such, it is important to mention that the opinions or conclusions of the contributors to this text are theirs, and not necessarily endorsed by the editor or the publisher. However, it is very important in a fast-moving field with exciting possibilities for new cancer therapies to provide readers with the views of leaders in the field from their own perspectives.

One of the chapters in this book was a contribution from Dr. Vincent Kidd and colleagues at St. Jude Children’s Research Hospital. In reviewing the proofs, I became aware that Dr. Kidd passed away suddenly on May 7, 2004. His colleagues have dedicated the chapter on caspase methylation, to which he made a major contribution, to his memory. We will all miss him.

I wish to take this opportunity to personally thank each and every contributor to this volume. I believe a useful resource has been created that will serve as a reference in the field and will also provide an excellent introduction of the cell death field to the beginner. There are many acronyms in this field, and this text describes the many molecules involved in death signaling and allows the reader to get a handle on their many names. The extrinsic death pathway and death receptors are of great interest to cancer biologists, immunologists, developmental biologists, medical oncologists, hematologists, radiation therapists, and rheumatologists as well as to those in the biotech and pharmaceutical industries.

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