
Preface

This book is not a text book, nor is it a monograph. It is not a history of the field of cell death, nor is it an exhaustive treatment. What it is *intended* to be is a starting point for those who are interested in cell death, especially in mammals, a subject about which I am admittedly passionate. The field has reached an interesting point at which I believe we have a reasonable understanding of the processes that are central to or consequences of cell death and its regulation. The book might be considered an argument that we have, indeed, reached this point.

I wrote this book primarily for students and informed individuals who would like to learn more about cell death. A college level understanding of cell biology and biochemistry is assumed, but I am not sure that it is absolutely essential. I have tried to define terms and processes that are necessary to comprehend the material. But there is certainly a limit: You must have a fairly clear idea of what a protein is, the parts of a cell, and cell signaling and transcription. That said, I have also tried to write the book so that it is of interest to those who work in the field (who will undoubtedly discover my mistakes, biases, and eccentricities).

This book is meant to be read from beginning to end. The order of the chapters is intentional, so that concepts developed in one chapter are built upon in chapters that follow. It is unlikely that any reader other than an expert will learn enough from any given chapter to gain anything close to a complete understanding, but if it is put into the context of the chapters that precede it, there should be many "aha" moments. The illustrations should be helpful, but they do not contain all the information that you need—that is in the text.

At the end of the book is a list called "Additional Reading." This list serves two purposes. First, it provides sources of further information and alternative viewpoints. Second, many (but not all) of the landmark papers upon which I based the positions I have taken are included.

As the author, I am responsible for the content of the book, including the mistakes and misconceptions. But under no circumstances should it be thought that I had anything to do with the vast majority of the discoveries on which the concepts, ideas, no-

tions, and musings are based. I admit that I do draw attention to some discoveries that were made in my own lab, by people I am proud of, and I have tried not to do this unduly.

The field of cell death owes a tremendous debt to many pioneers, and I have not given them suitable credit in the text for their phenomenal contributions. In particular, the field as we know it was the work of pathologists who recognized that there are discrete forms of cell death, scientists working in invertebrate models (especially nematodes and flies) who unraveled the genetic basis of cell death, and cancer biologists who identified molecules that control cell death. As I mention above, this book is not a history of the field. However, some of those pioneers who directly influenced my views and understanding of the field bear mention and thanks (in no particular order): Andrew Wyllie, John Kerr, John Cohen, Sten Orrenius, Stanley Korsmeyer, Yoshihide Tsujimoto, Jerry Adams, Martin Raff, Suzanne Cory, David Vaux, John Reed, Junying Yuan, Guido Kroemer, Andreas Strasser, Shigekazu Nagata, Peter Krammer, Michael Hengartner, Xiaodong Wang, David Wallach, Gerard Evan, Jurg Tschopp, Yigong Shi, Guy Salvesen, Tak Mak, Herman Steller, Hao Wu, Michael Karin, Richard Youle, Emad Alnemri, Vishva Dixit, Gerry Melino, and all of the others that I may have inadvertently missed (my apologies).

I must also mention some of those who made this book possible: Richard Sever, my editor and tormentor (just kidding), who cajoled me into writing this, and then stood steadfastly by me throughout; Tudor Moldoveanu, who generated many of the figures showing molecular structures; Guy Salvesen, Eric Baehrecke, and Carlos Lopez who read selected chapters and provided advice; Lisa Bouchier-Hayes and Melissa Parsons who read the entire book, corrected my errors, questioned some of my arguments, and helped enormously; and my family, Rona Mogil and Maggie Green, who put up with this project and with me.

I also would like to thank my parents, who inspired my love of science, and to whom this book is dedicated. When my sister and I were growing up, we spent our family time in the forest, learning to identify trees, birds, and animal tracks, and we thought that it was perfectly normal to veer off highways to collect wild flowers to plant in the yard. Although our parents are not scientists, we both became biologists, and my sister studies penguins on her base in the Antarctic. I chose to study cells, in part because I like to live where one can get a good martini.

I hope you enjoy reading this. Those of us who do science for a living know that often science is very hard work, but it can also be enormous fun. Most of all, I hope that the book encourages you to experience the latter.

DOUG GREEN
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