

---

# Contents

Preface .....	v
Contributors .....	xi
Contents of Volume 1 .....	xv

## PART I KINASES AND PHOSPHATASES

1	Significance of Protein Kinase A in Cancer <b><i>Maria V. Nesterova and Yoon S. Cho-Chung</i></b> .....	3
2	Protein Kinase C and Apoptosis <b><i>Mary E. Reyland</i></b> .....	31
3	The Role of Phosphoinositide 3-Kinase-Akt Signaling in Virus Infection <b><i>Samantha Cooray</i></b> .....	57
4	Cyclin-Dependent Kinase 5: <i>A Target for Neuroprotection?</i> <b><i>Frank Gillardon</i></b> .....	81
5	Critical Roles of the Raf/MEK/ERK Pathway in Apoptosis and Drug Resistance <b><i>James A. McCubrey, Fred E. Bertrand, Linda S. Steelman, Fumin Chang,</i></b> <b><i>David M. Terrian, and Richard A. Franklin</i></b> .....	101
6	MAPK Signaling in Human Diseases <b><i>Philippe P. Roux and John Blenis</i></b> .....	135
7	Serine/Threonine Protein Phosphatases in Apoptosis <b><i>Gro Gausdal, Camilla Krakstad, Lars Herfindal,</i></b> <b><i>and Stein Ove Døskeland</i></b> .....	151
8	Urokinase/Urokinase Receptor-Mediated Signaling in Cancer <b><i>Sreerama Shetty and Steven Idell</i></b> .....	167

## PART II MOLECULAR BASIS OF CELL DEATH

9	Signaling Pathways That Protect the Heart Against Apoptosis Induced by Ischemia and Reperfusion <b><i>Zheqing Cai and Gregg L. Semenza</i></b> .....	181
10	Cyclooxygenase-2 Gene Expression: <i>Transcriptional</i> <i>and Posttranscriptional Controls in Intestinal Tumorigenesis</i> <b><i>Shrikant Anant and Sripathi M. Sureban</i></b> .....	197
11	Death Receptors: <i>Mechanisms, Biology, and Therapeutic Potential</i> <b><i>Sharmila Shankar and Rakesh Srivastava</i></b> .....	219
12	DNA Damage-Dependent Apoptosis <b><i>Tomasz Skorski</i></b> .....	263
13	The Role of Proteasome in Apoptosis <b><i>Peter Low</i></b> .....	273
14	Apoptosis Induction in T Lymphocytes by HIV <b><i>Maria Saveria Gilardini Montani</i></b> .....	295

15	Inhibitors of Apoptosis Proteins and Caspases <b>Jai Y. Yu, John Silke, and Paul G. Ekert .....</b>	<b>313</b>
16	Intracellular Pathways Involved in DNA Damage and Repair to Neuronal Apoptosis <b>Maurizio Memo .....</b>	<b>335</b>
17	The Biology of Caspases <b>Tasman James Daish and Sharad Kumar .....</b>	<b>347</b>
18	Apoptosis and Human Diseases: Molecular Mechanisms: <i>Oxidative Stress in the Pathogenesis of Diabetic Neuropathy</i> <b>Mahdieh Sadidi, Ann Marie Sastry, Christian M. Lastoskie, Andrea A. Vincent, Kelli A. Sullivan, and Eva L. Feldman .....</b>	<b>365</b>
	Index .....	<b>395</b>

Apoptosis, Cell Signaling, and Human Diseases

Molecular Mechanisms, Volume 2

Srivastava, R. (Ed.)

2007, XVI, 402 p. 49 illus., 1 illus. in color., Hardcover

ISBN: 978-1-58829-882-9

A product of Humana Press