

CONTENTS

Preface		vii
Chapter 1	Progress in the Knowledge of Lipid Peroxidation, from the First Evidences Issued by Nicolas - Theodore De Saussure in Paris 1804 <i>Angel Catalá</i>	1
Chapter 2	Fighting against Lipid Peroxidation in the Brain: The Unique Story of Docosahexaenoic Acid <i>Mario Díaz, Verónica Casañas-Sánchez, Raquel Marín and José Antonio Pérez</i>	15
Chapter 3	Protective Effects of Melatonin and Structurally-Related Molecules in Reducing Membrane Rigidity due to Lipid Peroxidation <i>J. J. García, L. López-Pingarrón, E. Esteban-Zubero, M. C. Reyes-Gonzales, A. Casanova, J. O. Alda, D. Pereboom and R. J. Reiter</i>	27
Chapter 4	Synergistic Effects of Antioxidant Compositions during Inhibited Lipid Autoxidation <i>Vessela D. Kancheva and Silvia E. Angelova</i>	49
Chapter 5	Lipid Peroxidation and Animal Longevity <i>A. J. Hulbert, Nicolas Martin and Paul L. Else</i>	83
Chapter 6	Free Radicals and Lipid Peroxides in Health and Disease <i>Naveen K. V. Gundala, Siresha Bathina and Undurti N. Das</i>	99
Chapter 7	Lipid Peroxidation in Autoimmune Diseases: Friend or Foe? <i>Ana Reis and M. Rosário M. Domingues</i>	125
Chapter 8	Aldehydes Derived from Lipid Peroxidation in Cancer and Autoimmunity <i>Giuseppina Barrera, Stefania Pizzimenti, Martina Daga, Chiara Dianzani, Giovanni P. Cetrangolo, Alessio Lepore, Alessia Arcaro and Fabrizio Gentile</i>	147

Chapter 9	The Role of Reactive Oxygen Species and Lipid Peroxidation in the Neurodegenerative Process after Spinal Cord Injury	173
	<i>E. García, R. H. Rodríguez-Barrera, M. Goldberg and A. Ibarra</i>	
Chapter 10	Kinetics and Mechanism of Inhibited Lipid Autoxidation in Presence of 4-Substituted-Coumarins	213
	<i>Vessela D. Kancheva, Silvia E. Angelova and Adriana K. Slavova-Kazakova</i>	
Chapter 11	Hypoxia and Oxidative Stress: Cell Signaling Mechanisms and Protective Role of Vitamin C and Cilnidipine	249
	<i>Kusal K. Das, Swastika N. Das and Jeevan G. Ambekar</i>	
Chapter 12	Characterization of Oxidative Stress and Antioxidant's Potency: Pay Attention to Time and Location	263
	<i>Dov Lichtenberg and Ilya Pinchuk</i>	
Chapter 13	Lipid Peroxidation in Aquatic Organisms: Ontogenic, Phylogenetic and Ecological Aspects	271
	<i>I. I. Rudneva and V. G. Shaida</i>	
Chapter 14	Chemistry of Lipid Oxidation in Edible Oils	309
	<i>Alam Zeb</i>	
Chapter 15	Menopause Progression and Oxidative Stress: Associated Mechanisms and the Importance of Physical Exercise	321
	<i>Randhall Bruce Kreismann Carteri</i>	
About the Editor		333
Index		335