

Contents

1	Oxidative Stress	1
	Barry B. Halliwell and Henrik E. Poulsen	
2	Tobacco Smoke Constituents Affecting Oxidative Stress	5
	Jan B. Wooten, Salem Chouchane, and Thomas E. McGrath	
3	Oxidative Modifications of Proteins and Lipids by Cigarette Smoke (CS). A Central Role for Unsaturated Aldehydes in CS-Mediated Airway Inflammation	47
	Albert van der Vliet	
4	Cigarette Smoke-Induced Redox Signaling and Gene Expression in In Vitro and In Vivo Models	75
	Thomas Müller and Stephan Gebel	
5	Redox Effects of Cigarette Smoke in Lung Inflammation	113
	Irfan Rahman	
6	Oxidative Stress in the Pathogenesis of Chronic Obstructive Pulmonary Disease	165
	Irfan Rahman	
7	Modulation of Cigarette Smoke Effects by Diet and Antioxidants	199
	Marion Dietrich and Gladys Block	
8	Modulation of Cigarette Smoke Effects by Antioxidants: Oxidative Stress and Degenerative Diseases	215
	Jari Kaikkonen and Jukka T. Salonen	
9	Smoking Depletes Vitamin C: Should Smokers Be Recommended to Take Supplements?	237
	Jens Lykkesfeldt	
10	Experimental In Vitro Exposure Methods for Studying the Effects of Inhalable Compounds	261
	Michaela Aufderheide	

- 11 **Oxidative Stress in Laboratory Animals Exposed to Cigarette Smoke, with Special Reference to Chronic Obstructive Pulmonary Disease** 279
Chris Coggins
- 12 **Pulmonary Effects of Cigarette Smoke in Humans** 293
Nick H.T. ten Hacken and Dirkje S. Postma
- 13 **Smoking and Oxidative Stress: Vascular Damage** 339
Thomas Münzel, Felix Post, and Ascan Warnholtz
- 14 **Nrf2: a Transcription Factor that Modifies Susceptibility to Cigarette Smoke-Induced Pulmonary Oxidative Stress and Emphysema** 365
Shyam Biswal and Thomas W. Kensler
- 15 **Tobacco Smoke and Skin Aging** 379
Akimichi Morita
- 16 **Cigarette Smoke and Oxidative DNA Modification** 387
Henrik E. Poulsen, Allan Weimann, and Barry B. Halliwell

Cigarette Smoke and Oxidative Stress

Halliwell, B.B.; Poulsen, H.E. (Eds.)

2006, XII, 407 p. 66 illus., 18 illus. in color., Hardcover

ISBN: 978-3-540-31410-3