

# Contents

<b>1 Overview and Sources of Reactive Oxygen Species (ROS) in the Reproductive System.....</b>	<b>1</b>
Gulfam Ahmad, Mazen Almasry, Amolak S. Dhillon, Muna M. Abuayyash, Narasimhan Kothandaraman, and Zeynep Cakar	
<b>2 Methods to Measure Reactive Oxygen Species (ROS) and Total Antioxidant Capacity (TAC) in the Reproductive System .....</b>	<b>17</b>
Rakesh Sharma, Shubhadeep Roychoudhury, Nirvika Singh, and Yash Sarda	
<b>3 Physiological Roles of Reactive Oxygen Species (ROS) in the Reproductive System.....</b>	<b>47</b>
Stefan S. du Plessis, Avi Harlev, Mohamed Iesar Mohamed, Eiad Habib, Narasimhan Kothandaraman, and Zeynep Cakar	
<b>4 Negative Effects of Oxidative Stress (OS) on Reproductive System at Cellular Level.....</b>	<b>65</b>
Rakesh Sharma, Shubhadeep Roychoudhury, Rakan Alsaad, and Fares Bamajbuor	
<b>5 Extrinsic Factors Inducing Oxidative Stress (OS) in Male and Female Reproductive Systems .....</b>	<b>89</b>
Avi Harlev, Stefan S. du Plessis, Deepak Kumar, and Luay AlKattan	
<b>6 Pathological Roles of Oxidative Stress (OS) in Diseases Related to Female Reproductive System.....</b>	<b>107</b>
Sajal Gupta, Gulfam Ahmad, My Tran, Ghada Al Hayaza, and Zeina Kayali	

<b>7 Therapeutic Role of Antioxidants (AOX) in the Treatment of Infertility</b> .....	129
Sajal Gupta, Stefan S. du Plessis, Saad AlQasem, Mohammad Nouh, and Zeynep Cakar	
<b>8 Compendium of Oxidative Stress-Related Research from Cleveland Clinic (1993–2016)</b> .....	151
Damayanthi Durairajanayagam, Amolak S. Dhillon, Rian Salasin, Anthony Kashou, and Narasimhan Kothandaraman	

Oxidative Stress in Human Reproduction

Shedding Light on a Complicated Phenomenon

Agarwal, A.; Sharma, R.; Gupta, S.; Harlev, A.; Ahmad,  
G.; du Plessis, S.S.; Esteves, S.C.; Wang, S.M.;  
Durairajanayagam, D. (Eds.)

2017, XIV, 190 p. 38 illus., 26 illus. in color., Hardcover

ISBN: 978-3-319-48425-9