

# CONTENTS

<b>Preface</b>		xi
<b>Editors</b>		xiii
<b>Contributors</b>		xv
<b>Chapter 1</b>	Introduction	1
	<i>John J. Reynolds, Roger J. A. Grand, and Martin R. Higgs</i>	
<b>Chapter 2</b>	DNA Replication and Cell Cycle Control	5
	<i>Sara Priego Moreno, Rebecca M. Jones, and Agnieszka Gambus</i>	
<b>Chapter 3</b>	DNA Replication Termination and Genomic Instability	21
	<i>Rebecca M. Jones, Sara Priego Moreno, and Agnieszka Gambus</i>	
<b>Chapter 4</b>	Mechanisms of DNA Damage Tolerance	37
	<i>Cyrus Vaziri and Anastasia Zlatanou</i>	
<b>Chapter 5</b>	The Repair of DNA Single-Strand Breaks and DNA Adducts: Mechanisms and Links to Human Disease	63
	<i>Alicja Winczura and John J. Reynolds</i>	
<b>Chapter 6</b>	Homologous Recombination at Replication Forks	93
	<i>Eva Petermann</i>	
<b>Chapter 7</b>	Mechanism of Double-Strand Break Repair by Non-Homologous End Joining	113
	<i>Michal Malewicz</i>	
<b>Chapter 8</b>	Protein Methylation and the DNA Damage Response	135
	<i>Martin R. Higgs and Clare Davies</i>	
<b>Chapter 9</b>	Ubiquitin, SUMO and the DNA Double-Strand Break Response	167
	<i>Ruth M. Densham, Alexander J. Garvin, and Joanna R. Morris</i>	
<b>Chapter 10</b>	Transcription in the Context of Genome Stability Maintenance	205
	<i>Marco Saponaro</i>	
<b>Chapter 11</b>	RNA Binding Proteins and the DNA Damage Response	223
	<i>Roger J. A. Grand</i>	



<b>Chapter 12</b>	DNA Replication and Inherited Human Disease <i>John J. Reynolds and Grant S. Stewart</i>	249
<b>Chapter 13</b>	Ataxia Telangiectasia and Ataxia Telangiectasia–Like Disorders <i>A. Malcolm R. Taylor</i>	291
<b>Chapter 14</b>	DNA Repair Mechanisms in Stem Cells and Implications during Ageing <i>Rachel Bayley and Paloma Garcia</i>	307
<b>Chapter 15</b>	Targeting Replication Stress in Sporadic Tumours <i>Marwan Kwok and Tatjana Stankovic</i>	329
<b>Chapter 16</b>	A Few of the Many Outstanding Questions <i>John J. Reynolds and Roger J. A. Grand</i>	341
<b>Index</b>		343