

DNA Repair and Replication brings together contributions from active researchers. The first part of this book covers most aspects of the DNA damage response, emphasizing the relationship to replication stress. The second part concentrates on the relevance of this to human disease, with particular focus on both the causes and treatments which make use of DNA damage repair (DDR) pathways.

Key Features

- Chapters written by leading researchers
- Includes description of replication processes, causes of damage, and methods of repair

Related Titles

Haber, J. E. *Genome Stability: DNA Repair and Recombination* (ISBN 978-0-8153-4485-8).

Brown, T. A. *Genomes 4* (ISBN 978-0-8153-4508-4).

DePamphilis, M. & S. D. Bell. *Genome Duplication: Concepts, Mechanisms, Evolution, and Disease* (ISBN 978-04154-4206-0).

Dr. Roger J. A. Grand was an undergraduate in biochemistry at the University of Sheffield, followed by a PhD at the University of Leeds. After a fellowship at Royal Holloway College, University of London, he moved to the Department of Biochemistry at the University of Birmingham to study proteins involved in the regulation of striated muscle contraction. This research helped to define how signals were transmitted through the troponin complex to initiate muscle contraction. After a few years, Roger joined the Department of Cancer Sciences, which later became the Institute for Cancer and Genomic Sciences, at the University of Birmingham. Dr. Grand is now a Reader in Experimental Cancer Sciences and leads a research group specialising in the study of various aspects of the DNA damage response, both in normal cells and in those undergoing viral infection. Most recently, his lab has been interested in rare inherited diseases linked to mutations in DNA repair proteins.

Dr. John J. Reynolds earned a degree in genetics and microbiology at the University of Sheffield followed by doctoral research at the Genome Damage and Stability Centre (University of Sussex), where he worked on characterising the molecular defects underlying rare human diseases caused by mutations in DNA single-strand break repair factors. His post-doctoral research at the Cancer and Genomic Sciences (University of Birmingham) has focused on identifying and characterising novel DNA damage response genes and investigating how defects in DNA repair and DNA replication factors give rise to human diseases such as microcephalic dwarfism.



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