Small DNA Tumour Viruses

Edited by: Kevin L. Gaston

Department of Biochemistry, University of Bristol, Bristol, BS8 1TD, UK x + 324 pp, March 2012

ISBN: 978-1-904455-99-8, \$319/£159

Small DNA tumour viruses are a fascinating group of dsDNA viruses that continue to provide fundamental insights into mammalian cell transformation, cell cycle control and tumour formation. The causal link between papillomaviruses and some human cancers is well known and a role for polyomavirus in human cancer has recently been established. Adenoviruses do not cause cancer in humans but as well as providing excellent tools for the study of host cell processes these viruses have been exploited as delivery vehicles in gene therapy for diseases such as cystic fibrosis and cancer. A common feature of small DNA tumour viruses is their heavy reliance on the host for survival and replication. Understanding the virus-host relationship is critical to understanding the tumourigenic process and how these viruses subvert the host's immune system.



In this timely book leading scientists from around the world review current hot-topics in this area

providing a fascinating overview of the molecular biology and virus-host interaction. Essential reading for everyone working on small DNA tumour viruses and their associated diseases and a recommended text for anyone involved with DNA replication, DNA

damage responses and genome instability, virus-host interactions, viral tumourigenesis or antiviral drug development.

Contents

- Chapter 1: Human Papillomavirus Infection and its Association With Neoplasia: From Molecular Biology to Prevention and Treatment. *Richard Oparka and C. Simon Herrington*
- Chapter 2: The Art and Science of Obtaining Virion Stocks for Experimental Human Papillomavirus Infections. Michelle A. Ozbun and Michael P. Kivitz
- Chapter 3: The Regulation of Human Papillomavirus Gene Expression by the E2 Protein: Keeping a Finger in Every Pie. Sheila Graham and Kevin L. Gaston
- Chapter 4: HPV E5: An Enigmatic Oncoprotein. Laura F. Wetherill, Rebecca Ross and Andrew Macdonald
- Chapter 5: E6 Oncoproteins: Structure and Associations. Scott B. Vande Pol
- Chapter 6: Biochemical and Structure-function Analyses of the HPV E7 Oncoprotein. Leonardo G. Alonso, Lucía B. Chemes, María L. Cerutti, Karina I. Dantur, and Gonzalo de Prat-Gay
- Chapter 7: Replication and Maintenance of Viral Genomes by Association with Host Chromatin. Koenraad Van Doorslaer, Vandana Sekhar, Jameela Khan, and Alison A. McBride
- Chapter 8: Alterations in Cellular miRNAs Induced by Human Papillomaviruses. Amy S. Gardiner, Abigail I. Wald and Saleem A. Khan
- Chapter 9: Viral Deregulation of DNA Damage Responses. Sergei Boichuk and Ole Gjoerup
- Chapter 10: Structural "Snap-shots" of the Initiation of SV40 Replication. Gretchen Meinke and Peter A. Bullock
- Chapter 11: Human Papillomavirus DNA Replication: Insights into the Structure and Regulation of a Eukaryotic DNA Replisome. *Claudia M. D'Abramo, Amélie Fradet-Turcotte and Jacques Archambault*
- Chapter 12: Induction of Genomic Instability by Human Papillomavirus Oncoproteins. Karl Münger and Stefan Duensing
- Chapter 13: Targeting of PML Proteins and PML Nuclear Bodies by DNA Tumour Viruses. Keith N. Leppard and Jordan Wright
- Chapter 14: Adenoviruses and Gene Therapy: The Role of the Immune System. Laura White and G. Eric Blair

Related books of Interest:

 • qPCR • Non-coding RNAs and Epigenetic Regulation of Gene Expression • Metagenomics • Alphaherpesviruses • Vaccine Design • Epstein-Barr Virus • Lentiviruses and Macrophages • Viruses and Interferon • Papillomavirus Research • Cytomegaloviruses

More details WUjghYf'Wca

Other books of interest

Two-Component Systems in Bacteria

Edited by: R Gross, D Beier c. 410 pp, August 2012 ISBN: 978-1-908230-08-9, \$360/£180 Latest research on structure-function analysis, sensing mechanisms, atypical two-component systems, stress responses, developmental processes, virulence and symbiosis.

Foodborne & Waterborne Bacterial Pathogens

Epidemiology, Evolution and Molecular Biology Edited by: SM Faruque c. 330 pp, July 2012 ISBN: 978-1-908230-06-5, \$319/£159

Review topics such as pathogenic properties, population genetics, virulence genes, evolution, drug resistance, epidemiology, detection, identification and control strategies.

Yersinia

Systems Biology and Control Edited by: E Carniel, BJ Hinnebusch c. 240 pp, July 2012 ISBN: 978-1-908230-05-8, \$319/£159 Leading *Yersinia* researchers review the hot topics in the systems biology and control of these important bacteria.

Stress Response in

Microbiology

Edited by: JM Requena c. 500 pp, June 2012 ISBN: 978-1-908230-04-1, \$360/£180 Expert authors from around the world summarise the current knowledge on microbial stress response and comprehensively review the recent findings that have greatly advanced the understanding of stress response systems.

Bacterial Regulatory Networks

Edited by: AAM Filloux c. 400 pp, June 2012 ISBN: 978-1-908230-03-4, \$360/£180 Authoritative, up-to-date reviews of

the current research and theories on regulatory networks in bacteria. Critical reviews written by the leading research scientists in the field.

Systems Microbiology

Current Topics and Applications Edited by: BD Robertson, BW Wren c. 200 pp, June 2012

ISBN: 978-1-908230-02-7, \$319/£159 Cutting-edge reviews by world-leading experts on the systems biology of microorganisms. Includes theoretical approaches, mathematical modelling, case studies on microbial species and the systems analysis of microbial phenomena.

Quantitative Realtime PCR in Applied

Microbiology Edited by: M Filion

c. 280 pp, May 2012 ISBN: 978-1-908230-01-0, \$319/£159 Aimed specifically at microbiologists, this volume describes and explains the most important aspects of current realtime quantitative PCR (qPCR) strategies, instrumentation and software.

Bacterial Spores

Current Research and Applications Edited by: E Abel-Santos c. 300 pp, April 2012

C. 300 pp, April 2012 ISBN: 978-1-908230-00-3, \$319/£159 Comprehensive, up-to-date reviews on the current state of our knowledge of bacterial endospores. Essential text for everyone involved in spore research, the expression of recombinant proteins and pathogen detection.

Small DNA Tumour Viruses

Edited by: K Gaston x + 324 pp, March 2012 ISBN: 978-1-904455-99-8, \$319/£159 Leading scientists from around the world review current hot-topics on small DNA tumour virus research providing a fascinating overview of their molecular biology and interactions with the host.

Extremophiles

Microbiology and Biotechnology Edited by: RP Anitori

xiv + 300 (colour figures) pp, January 2012 ISBN: 978-1-904455-98-1, \$319/£159 Current and topical areas of extremophile research. The latest insights into the mechanisms these fascinating organisms use to survive and the most recent and novel biotechnological uses of extremophiles.

Bacillus

topical research.

Cellular and Molecular Biology (2e) Edited by: P Graumann xii + 398 pp, February 2012 ISBN: 978-1-904455-97-4, \$360/£180 A valuable reference work providing a comprehensive and up-to-date analysis. Critical reviews on the most recent and

Microbial Biofilms

Current Research and Applications Edited by: G Lear, GD Lewis x + 228 pp, February 2012 ISBN: 978-1-904455-96-7, \$319/£159 An up-to-date review of the latest scientific research on microbial communities and a discussion of future trends and growth areas in biofilm-related research.

Bacterial Glycomics

Current Research, Technology and Applications

Edited by: CW Reid, SM Twine, AN Reid x + 270 pp, February 2012 ISBN: 978-1-904455-95-0, \$319/£159 Up-to-date overview of our current understanding of bacterial glycomes, the main analytical methods and recent and novel applications.

Non-coding RNAs and Epigenetic Regulation of Gene Expression

Drivers of Natural Selection Edited by: KV Morris

x + 216 pp, February 2012 ISBN: 978-1-904455-94-3, \$319/£159 An important and up-to-date overview of the modulation of gene transcription by non-coding RNAs. An essential reference book and a major information resource for those working in the area.

Brucella

Molecular Microbiology and Genomics

Edited by: I López-Goñi, D O'Callaghan x + 262 pp, February 2012 ISBN: 978-1-904455-93-6, \$319/£159 Highly acclaimed *Brucella* scientists comprehensively review the most important advances in the field. Topics include: genetic diversity, proteomic analysis, transcriptomic analysis, and much more.

Molecular Virology and Control of Flaviviruses Edited by: P-Y Shi

x + 358 pp, January 2012 ISBN: 978-1-904455-92-9, \$360/£180 An up-to-date and cutting-edge anthology from the leading experts in the flavivirus field. Essential reading for flavivirus researchers at the graduate level and beyond.

"a valuable resource" (Doodys)

Bacterial Pathogenesis

Molecular and Cellular Mechanisms Edited by: C Locht, M Simonet x + 370 pp, January 2012 ISBN: 978-1-904455-91-2, \$360/£180 Distinguished scientists comprehensively describe the most relevant and up-to-date information on pathogenic features across the bacterial world.

"useful to those in many areas of research" (Doodys)

FULL DETAILS OF ALL OUR BOOKS AT WWW.CAISTER.COM