

Papillomavirus Research

From Natural History To Vaccines and Beyond



Edited by: **M. Saveria Campo**

Division of Pathological Sciences, Institute of Comparative Medicine University of Glasgow, Glasgow G61 1QH, UK

Published: January 2006. **Pages:** x + 424

Hardback: ISBN 978-1-904455-04-2 £159, \$319

Published by: Caister Academic Press www.caister.com

Papillomaviruses are oncogenic DNA tumour viruses that infect humans and animals. Human papillomavirus is one of the most common causes of sexually transmitted infection in the world and can also cause cancer. Papillomavirus research has been revolutionised in recent years with the advent of new technologies such as organotypic raft cultures, virus-like particles and transgenic mice. New facets of virion structure, life cycle, immunology and oncogenicity have recently emerged.

In this timely book leading scientists review current aspects of papillomavirus research providing a fascinating insight into papillomavirus molecular biology, interactions with the host, immunology and vaccine development. Topics covered include epidemiology and taxonomy, phylogenetic analyses, gene expression, regulation of DNA replication, transcription factor proteins, organotypic raft cultures, virus-like particles, and much more. Essential reading for scientists and researchers working on papillomavirus and a recommended text for anyone involved with antiviral drug and vaccine development.

Chapter 1. Linking Human Papillomaviruses to Cervical Cancer: A Long and Winding Road. *Lutz Gissmann*

Chapter 2. Phylogeny and Taxonomy of Papillomaviruses.. *Hans-Ulrich Bernard*

Chapter 3. Epidemiology of Human Papillomavirus Infections and Associations with Cervical Cancer: New Opportunities For Prevention. *F. Xavier Bosch, Silvia de Sanjosé, Xavier Castellsagué, V'ctor Moreno, Nubia Muñoz*

Chapter 4. Gene Expression of Papillomaviruses.. *Mina Kalantari and Hans-Ulrich Bernard*

Chapter 5. Mechanisms and Regulation of Papillomavirus DNA Replication. *Louise T. Chow and Thomas R. Broker*

Chapter 6. The Papillomavirus Transcription/Replication Factor E2: Structure, Function, Cancer and Therapy. *Iain M. Morgan and Mary M. Donaldson*

Chapter 7. The E4 Protein - A Late Starter. *Sally Roberts*

Chapter 8. Biological Activities of Papillomavirus E5 Proteins. *Frank A. Suprynowicz, M. Saveria Campo and Richard Schlegel*

Chapter 9. The Role of the HPV E6 Oncoprotein in Malignant Progression.. *Miranda Thomas, David Pim and Lawrence Banks.*

Chapter 10. The Biology of the E7 protein of HPV-16. *Dennis J. McCance*

Chapter 11. Organotypic Raft Cultures and the Study of the Natural History of Papillomavirus. *Jason M. Bodily, Samina Alam, Horng-Shen Chen, and Craig Meyers*

Chapter 12. Early Events in the Papillomaviral Lifecycle. *Patricia M. Day and John T. Schiller*

Chapter 13. Late Events in the Life Cycle of Human Papillomaviruses. *Sheila V. Graham*

Chapter 14. Transgenic Mouse Models for the *In Vivo* Analysis of Papillomavirus Oncogene Function. *Paul F. Lambert, Scott J. Balsitis, Anny Shai, Sara J.S. Simonson, Sybil M.G. Williams*

Chapter 15. HPV and Oesophageal Carcinoma. *Kari Syrjänen*

Chapter 16. Recurrent Respiratory Papillomatosis, HPV, and Impact on Host Response. *Andrea Vambutas and Bettie M. Steinberg*

Chapter 17. The Cutaneous Human Papillomavirus Types and Non-melanoma Skin Cancer. *Veronique Bouvard, Anne-Sophie Gabet, Rosita Accardi, Bakary S. Sylla and Massimo Tommasino*

Chapter 18. Papillomavirus-like Particles and Their Applications in MolecularVirology, Human Serology and Vaccines. *Richard B.S. Roden and Raphael P. Viscidi*

Chapter 19. Immunobiology of Papillomaviruses. *Margaret A Stanley*

Chapter 20. Immune Evasion in Genital Papillomavirus Infection and Cervical Cancer: Role of Cytokines and Chemokines. *Sigrun Smola-Hess and Herbert Pfister*

Chapter 21. HPV Vaccines. *Michelle Giles and Suzanne M. Garland*

Chapter 22. HPV Vaccines in Plants: An Appetising Solution to Control Infection and Associated Cancers. *Rosella Franconi and Aldo Venuti*

Chapter 23. Bovine Papillomavirus: Old System, New Lessons?. *M Saveria Campo*

Chapter 24. Bovine Papillomaviruses and Equine Sarcoids. *Lubna Nasir and Stuart W.J. Reid*

Chapter 25. Rabbit Viral Papillomas and Carcinomas: Model Diseases for Human Papillomavirus Infections and Associated Carcinogenesis. *Françoise Breitbart, Mathieu Nonnenmacher, Jérôme Salmon and Gérard Orth*

Order from:

Caister Academic Press, c/o Book Systems Plus <http://www.caister.com/order>

☞ **MALDI-TOF Mass Spectrometry in Microbiology**

Edited by: Markus Kostrzewa and Sören Schubert (Published: 2016)

☞ ***Aspergillus* and *Penicillium* in the Post-genomic Era**

Edited by: Ronald P. de Vries, Isabelle Benoit Gelber and Mikael Rørdam Andersen (Published: 2016)

☞ **The Bacteriocins: Current Knowledge and Future Prospects**

Edited by: Robert L. Dorit, Sandra M. Roy and Margaret A. Riley (Published: 2016)

☞ **Omics in Plant Disease Resistance**

Edited by: Vijai Bhadauria (Published: 2016)

☞ **Acidophiles: Life in Extremely Acidic Environments**

Edited by: Raquel Quatrini and D. Barrie Johnson (Published: 2016)

☞ **Climate Change and Microbial Ecology: Current Research and Future Trends**

Edited by: Jürgen Marxsen (Published: 2016)

☞ **Biofilms in Bioremediation: Current Research and Emerging Technologies**

Edited by: Gavin Lear (Published: 2016)

☞ **Microalgae: Current Research and Applications**

Edited by: Maria-Nefeli Tsaloglou (Published: 2016)

☞ **Gas Plasma Sterilization in Microbiology: Theory, Applications, Pitfalls and New Perspectives**

Edited by: Hideharu Shintani and Akikazu Sakudo (Published: 2016)

☞ **Virus Evolution: Current Research and Future Directions**

Edited by: Scott C. Weaver, Mark Denison, Marilyn Roossinck and Marco Vignuzzi (Published: 2016)

☞ **Arboviruses: Molecular Biology, Evolution and Control**

Edited by: Nikos Vasilakis and Duane J. Gubler (Published: 2016)

☞ ***Shigella*: Molecular and Cellular Biology**

Edited by: William D. Picking and Wendy L. Picking (Published: 2016)

☞ **Aquatic Biofilms: Ecology, Water Quality and Wastewater Treatment**

Edited by: Anna M. Román, Helena Guasch and M. Dolors Balaguer (Published: 2016)

☞ **Alphaviruses: Current Biology**

Edited by: Suresh Mahalingam, Lara Herrero and Belinda Herring (Published: 2016)

☞ **Thermophilic Microorganisms**

Edited by: Fu-Li Li (Published: 2015)

☞ **Flow Cytometry in Microbiology: Technology and Applications**

Edited by: Martin G. Wilkinson (Published: 2015)

"an impressive group of experts" ([ProtoView](#))

☞ **Probiotics and Prebiotics: Current Research and Future Trends**

Edited by: Koen Venema and Ana Paula do Carmo (Published: 2015)

☞ **Epigenetics: Current Research and Emerging Trends**

Edited by: Brian P. Chadwick (Published: 2015)

"this is one text you don't want to miss" ([Epigenie](#)); "up-to-date information" ([ChemMedChem](#))

☞ ***Corynebacterium glutamicum*: From Systems Biology to Biotechnological Applications**

Edited by: Andreas Burkovski (Published: 2015)

"Without question a valuable book" ([BIOSpektrum](#))

☞ **Advanced Vaccine Research Methods for the Decade of Vaccines**

Edited by: Fabio Bagnoli and Rino Rappuoli (Published: 2015)