

Epigenetics

A Reference Manual

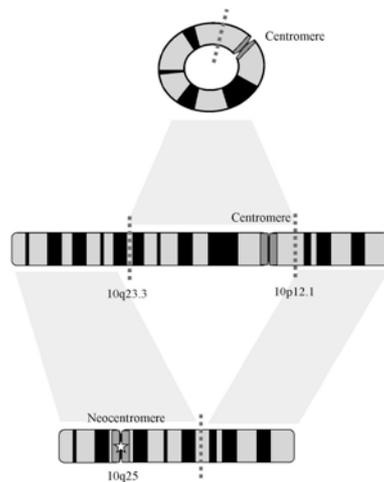
Edited by: **Jeffrey M. Craig and Nicholas C. Wong**
 (Murdoch Children's Research Institute, Victoria, Australia)

c. 450 pp., September 2011

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www.caister.com



Epigenetics is the study of changes in gene expression caused by mechanisms other than changes in the DNA sequence. Epigenetics is a rapidly advancing field with an increasing impact on biological and medical research.

The editors of this book have assembled top-quality scientists from diverse fields of epigenetics to produce a major new volume. Comprehensive and cutting-edge, the 26 chapters in this book constitute a key reference manual for everyone involved in epigenetics, DNA methylation, cancer epigenetics and related fields. Topics include: early life environment, DNA methylation and behavior, histone acetyltransferase biology, transgenerational epigenetic inheritance, mammalian X inactivation, epigenetic memory in plants, polycomb-group regulation, centromeres and telomeres, DNA sequence contribution to nucleosome distribution, macrosatellite epigenetics, histones, cell-fate specification and reprogramming, DNA methylation in cancer, variant histone H2A and cancer development, RNA modification, paramutation in plants, DNMT3L dependent methylation during gametogenesis, non-coding RNA, bisulphite-enabled technologies, rapid analysis of DNA methylation, microarray mapping, DNA methylation profiling, ChIP-sequencing, genome-wide DNA methylation analysis, and epigenetics in maize. In addition there are useful chapters on bioinformatics in epigenomics, online resources and tools for epigeneticists, and educational resources for epigeneticists.

This up-to-date reference manual is an essential book for those working in the field and for scientists in other disciplines it represents a major information resource on the fascinating and fast-moving field of epigenetics.

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Epigenetics

Edited by: Jörg Tost (*Evry, France*)

xii + 404 pp, March 2008 ISBN: 978-1-904455-23-3, \$300/£150

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"... an excellent collection of advanced review papers on different aspects of the emerging research field of epigenetics ... comprehensive coverage ... an essential primer for anyone interested in the dynamic evolution of epigenetics research ... " *from Crop Science (2009) 49: 1937-1938.*

Non-coding RNAs and Epigenetic Regulation of Gene Expression: Drivers of Natural Selection

Edited by: Kevin V. Morris (*The Scripps Research Institute, La Jolla, California, USA*)

c. 220 pp, February 2012

ISBN: 978-1-904455-94-3, \$310/£159

This book, written by a group of distinguished scientists under the expert guidance of the editor Kevin V. Morris, represents an important overview and summary of the field to date. An essential book for those working in the area and a major information resource on current research in the fast-moving fields of epigenetics, the regulation of gene expression, and RNA research. A valuable insight into this important and fascinating area of molecular biology.

PCR Troubleshooting and Optimization: The Essential Guide

Edited by: Suzanne Kennedy and Nick Oswald (*Carlsbad, USA and Edinburgh, UK; respectively*)

viii + 236 (plus colour plates) pp, January 2011

ISBN: 978-1-904455-72-1, \$310/£159

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