

PLANT GENES, GENOMES AND GENETICS

Erich Grotewold, Joseph Chappell, Elizabeth A. Kellogg

Plant Genes, Genomes and Genetics provides a comprehensive treatment of all aspects of plant gene expression. Unique in explaining the subject from a plant perspective, it highlights the importance of key processes, many first discovered in plants, that impact how plants develop and interact with the environment. This text covers topics ranging from plant genome structure and the key control points in how genes are expressed, to the mechanisms by which proteins are generated and how their activities are controlled and altered by post-translational modifications.

Written by a highly respected team of specialists in plant biology with extensive experience in teaching at undergraduate and graduate level, this textbook will be invaluable for students and instructors alike.

Plant Genes, Genomes and Genetics also includes:

- specific examples that highlight when and how plants operate differently from other organisms;
- special sections that provide in-depth discussions of particular issues;
- end-of-chapter problems to help students recapitulate the main concepts;
- rich, full-color illustrations and diagrams clearly showing important processes in plant gene expression;
- a companion website with PowerPoint slides of all figures, downloadable tables, and answers to the problems posed in the book.

Aimed at upper level undergraduates and graduate students in plant biology, this text is equally suited for advanced agronomy and crop science students inclined to understand molecular aspects of organismal phenomena. It is also an invaluable starting point for professionals entering the field of plant biology.

Dr Erich Grotewold is currently a professor in the Department of Molecular Genetics (College of Arts & Sciences) as well as in the Department of Horticulture & Crop Sciences (College of Food, Agriculture & Environmental Sciences) at The Ohio State University. His research focuses on plant systems biology.

Dr Joseph Chappell joined the faculty at the University of Kentucky in 1985, where he has developed an internationally recognized research program pioneering the molecular genetics and biochemistry of natural products in plants.

Dr Elizabeth A. Kellogg was formerly the E. Desmond Lee and Family Professor of Botanical Studies at the University of Missouri–St. Louis, and is currently a Member of the Donald Danforth Plant Science Center in St. Louis. Her work focuses on the evolution of plant genes, genomes and development, particularly in the cereal crops and their wild relatives.



A companion website with additional resources is available at
www.wiley.com/go/grotewold/plantgenes

 Also available
as an e-book

www.wiley.com/wiley-blackwell

WILEY Blackwell



American Society
of Plant Biologists

ISBN 978-1-119-99887-7



9 781119 998877