

WOODHEAD PUBLISHING SERIES IN BIOMEDICINE

Technological advancements in the post-genomic era are continually influencing the plant field in areas such as the selection of plant varieties and plant breeding. *Applied Plant Genomics and Biotechnology* provides an overview on the ongoing projects and activities in the field of applied biotechnology, with examples in different crops and applications to be exploited. This book reviews and discusses Plant Functional Genomic studies, future developments in the field and explores the new technologies supporting the genetic improvement of plants and the production of plant varieties more resistant to biotic and abiotic stresses. Chapters include discussions on various research projects on plant biology, functional genomics, application of RNA silencing and RNA interference, RNA based vaccines, RNA signaling at a distance and plant epigenetics.

Key features include:

- a broad range of perspectives on the current developments in applied biotechnology
- an exploration of plant functional genomic studies and future developments
- presentation of the new technologies enhancing plant genetics

Dr Palmiro Poltronieri is researcher at the Food, Agriculture, Fisheries and Bioscience Department of the Italian National Research Council. He is cofounder of Biotecgen SME - a service company involved in European projects (FP VI STREP Novel roles for non-coding RNAs -RIBOREG- and the FP VII ABSTRESS, starting in 2012), in which several partners collaborated in the development of the first Ribochip DNA arrays. He is Associate Editor to BMC Research Notes, to Journal of Food Research, and International Journal of Plant Research. He holds a Ph.D. in Molecular and Cellular Biology from Verona University, obtained in 1995. Between 1996 to 1997 he was 'Japanese Society for Promotion of Science' post-doctoral fellow at Tsukuba University. Since 1999 as a researcher for the NRC of Italy he has been studying plant protease inhibitors, and their applications. Current interest is on the water stress response in roots of tolerant and sensitive chickpea varieties, activating the jasmonic acid synthesis genes and production of OPDA, Jasmonic acid and other oxylipins at different time and time course in plant roots.

Professor Yiguo Hong is a scientist based at the College of Life and Environmental Sciences, Hangzhou Normal University, Hangzhou, People's Republic of China. He is an eminent scientist expert on plant viruses and RNA silencing, with publications in high rank journals, such as *Nature Genetics*, and Editor of a special issue in *Frontiers of plant science*, on RNA signaling in plants.



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