

While the complete sequencing of the genomes of model organisms such as a multitude of bacteria and archaea and the mouse and human genomes have received much public attention, the deciphering of plant genomes was greatly lagging behind. Up to now, only two plant genomes, one of the model plant *Arabidopsis thaliana* and one of the crop species rice (*Oryza sativa*) have been sequenced. Notwithstanding this public bias towards genomics of animals and humans, it is nevertheless of great importance for basic and applied sciences and industries in such diverse fields as agriculture, breeding in particular, evolutionary genetics, biotechnology, and food science to know the composition of crop plant genomes in detail. It is equally crucial for a deeper understanding of the molecular basis of biodiversity and synteny.

The Handbook of Genome Mapping is the first book in the market to cover these hot topics in considerable detail, and set apart by its combination of genetic and physical mapping. Throughout, each chapter begins with an easy-to-read introduction, also making the book the first reference designed for non-specialists and newcomers, too.

In addition to being an outstanding bench work reference, the book is an excellent textbook for learning and teaching genomics, especially for courses on genome mapping. It also serves as up-to-date guide for seasoned researchers involved in genetic and physical mapping of genomes, in particular plant genomes.

Khalid Meksem is Assistant Professor at the Department of Plant, Soil & General Agriculture of Southern Illinois University. After gaining his doctorate at the University of Cologne, Germany, he joined Southern Illinois University at the end of 1996. His main research interests focus on

- Genomics tools for soybean
- BAC and physical mapping: physical map construction and integration
- Soybean Cyst Nematode disease resistance genes
- Plant pathogen genomics (*FUSARIUM VIRGULIFORME*)
- Developing international and national scientific network on structural genomics in plants and functional genomics

Khalid Meksem is associate editor of the *Journal of Biomedicine and Biotechnology* and a reviewer for a number of International Scientific Journals as well as for several granting agencies, including the National Science Foundation and the US Department of Agriculture.

Günter Kahl is Professor for Plant Molecular Biology at Johann Wolfgang Goethe University, Frankfurt am Main, Germany. After gaining his Ph.D. in plant biochemistry, he spent two post-doctoral years at Michigan State University, East Lansing, USA, joining Professor Joe Varner and Professor James Bonner at the California Institute of Technology, Pasadena. His main research interests focus on

- Genetic and physical mapping and isolation and characterization of plant defence genes and their promoters
- Plant genome analysis
- Expression profiling

Due to the international nature of this work, Professor Kahl cooperates with a series of research institutions throughout Europe, in Japan, the USA, Syria, India, and South America. He has served in expert missions for IAEA, FAO and UNESCO in these and many other countries.

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