

BOOK REVIEWS

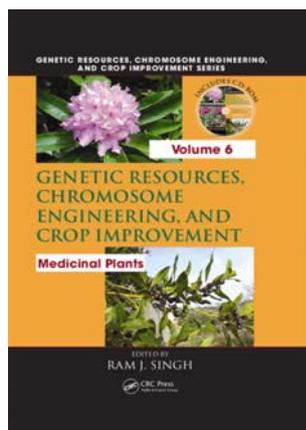
for researchers interested in transcriptional changes. The authors point out that the mouse models of disease may not always reflect the human disease scenario; for example the role of Type 1 interferon as an important mediator during systemic lupus erythromatoses, an autoimmune disease. The authors surmise that transcriptional analysis together with flow cytometry and proteomic analysis will give a comprehensive profile of the immune status of individuals.

One of the major problems with vaccines against HIV is their failure to generate effective neutralizing antibodies that are effective against a broad variety of strains. There is an informative review on this aspect and it turns out that neutralizing antibodies are indeed generated by the host. However, these are produced later during infection and are effective against viruses that were present earlier, but are ineffective against current forms of the virus. The challenge will be to develop vaccines that generate high amounts of neutralizing antibodies that can prevent or lower viral entry and/or dissemination during the early infective phase. The major focus has been to map epitopes recognized by neutralizing antibodies on the surface Env protein encoded by HIV, which is composed of trimers of gp120 and gp41. Further optimization of immunogen design coupled with a better understanding of the structural basis of viral neutralizing antibodies will be required to enhance our understanding of this complex problem.

This volume contains a wealth of precious information on the fast and dynamic changes occurring in our understanding of the immune system. Perhaps, it is apt to end with two quotes from Cooper's autobiographical essay. He points out that 'it is humbling to realize that 150 years after Darwin published *Origin of the Species* we still have so much to learn about the how and why our complex immune system evolved'. The second quote is more endearing, 'I cannot imagine a field of research that is more exciting and one that offers better opportunity to explore the balance of life on our planet. Perhaps, this view explains why I am hooked for life with immunobiology.'

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Genetic Resources, Chromosome Engineering, and Crop Improvement Series: Medicinal Plants. Ram J. Singh (ed.). CRC Press, Taylor & Francis Group, 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, FL 33487-2742, USA. 2011. Vol. 6. 1066 pp. Price: US\$ 133.11.

The book is an encyclopedia consolidating landmark research leads, with a description of medicinal plants of different countries. It contains 30 chapters by leading experts and panelists, presenting an exhaustive global update on medicinal plants, genetic resources and their increasing importance in pharmaceutical and cosmeceutical industries, medicine and nutrition

around the world. Closer examination reveals a wealth of information on individual medicinal plants, including their history, genetic resources, cytogenetics and varietal improvement through conventional and modern methods. It also provides useful information on germplasm resources of medicinal plants, their history, taxonomy, biogeography, ecology and biodiversity.

The topic of medicine is of no small interest as the active ingredients from the medicinal plants described may be used as lead structures in modern medicinal chemistry. Molecular studies on many such plants used in Ayurveda and traditional Chinese medicine have been undertaken in recent years, and have already led to interesting lead structures. Those who are interested in specific plants will find a comprehensive compilation in this handbook, and can bank upon the useful literature and references provided.

The volume would be useful for students, teachers and academicians involved in human resource development and in research. It is especially recommended for the libraries of research institutions and research groups working on natural products, medicinal chemistry and traditional healing methods. It may also prove handy to scientific bodies, regulatory authorities, policy makers and the herbal industry, in addition to other institutions involved in the development, assessment and registration of such plants.

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