

New Books

MOLECULAR ALLERGY DIAGNOSTICS

Innovation for a Better Patient Management

Jörg Kleine-Tebbe, Thilo Jakob (Eds.)

SPRINGER. 1st ed. 2017, XX, 531 p. 112 illus., 100 illus. in color.

- First and so far only comprehensive text book of molecular allergy diagnostics
- Multiple illustrations reduced complex material to relevant essentials for the clinician
- Each chapter contains detailed recommendations for use in clinical routine

This book, based on a recent German publication, offers an overview of basic data and recent developments in the groundbreaking field of molecular allergology. It comprehensively explores the origin and structure of single allergen molecules ("components") and their utility in improving the management of type I, IgE-mediated allergic reactions and disorders like allergic respiratory diseases, food allergies, and anaphylaxis. Highly specific testing, called component-resolved diagnostics, aims to identify and utilize single molecules. Over 200 single allergens from plant or animal sources have been applied to single or multiplex laboratory testing for the presence of allergen-specific IgE. This leap in assay sensitivity and specificity has led to three major advances in patient management: discrimination between primary allergic sensitization and complex cross-reactivity, recognition of IgE profiles for certain allergens and identification of patients most likely to benefit from allergen-specific immunotherapy. The book discusses in detail the benefits and limitations of this 21st century technology, and offers suggestions for the use of molecular allergology in routine clinical practice. It is a "must read" for physicians treating allergic patients as well as scientists interested in natural allergic molecules and their interactions with the human immune system.

MODERN META-ANALYSIS

Review and Update of Methodologies

Ton J. Cleophas, Aeilko H. Zwinderman

SPRINGER. 1st ed. 2017, XVI, 314 p. 246 illus., 63 illus. in color.

- A series of novel methodologies unpublished so far have been covered
- The book has been jointly written by a clinician and a mathematical statistician
- This is the first book implementing machine learning into the field of metaanalysis

Modern meta-analyses do more than combine the effect sizes of a series of similar studies. Meta-analyses are currently increasingly applied for any analysis beyond the primary analysis of studies, and for the analysis of big data. This 26-chapter book was written for nonmathematical professionals of medical and health care, in the first place, but, in addition, for anyone involved in any field involving scientific research. The authors have published over twenty innovative meta-analyses from the turn of the century till now. This edition will review the current state of the art, and will use for that purpose the methodological aspects of the authors' own publications, in addition to other relevant methodological issues from the literature. Are there alternative works in the field? Yes, there are, particularly in the field of psychology. Psychologists have invented meta-analyses in 1970, and have continuously updated methodologies. Although very interesting, their work, just like the whole discipline of psychology, is rather explorative in nature, and so is their focus to meta-analysis. Then, there is the field of epidemiologists. Many of them are from the school of angry young men, who publish shocking news all the time, and JAMA and other publishers are happy to publish it. The reality is, of course, that things are usually not as bad as they seem. Finally, some textbooks, written by professional statisticians, tend to use software programs with miserable menu programs and requiring lots of syntax to be learnt. This is prohibitive to clinical and other health professionals. The current edition is the first textbook in the field of meta-analysis entirely written by two clinical scientists, and it consists of many data examples and step by step analyses, mostly from the authors' own clinical research.