New Books

Respiratory Mechanics
Authors: Wilson, Theodore A.
SPRINGER 1st ed. 2016, VIII, 64 p. 29 illus., 13 illus. in color

This book thoroughly covers each subfield of respiratory mechanics: pulmonary mechanics, the respiratory pump, and flow. It presents the current understanding of the field and serves as a guide to the scientific literature from the golden age of respiratory mechanics, 1960 - 2010. Specific topics covered include the contributions of surface tension and tissue forces to lung recoil, the gravitational deformation of the lung, and the interdependence forces that act on pulmonary airways and blood vessels. The geometry and kinematics of the ribs is also covered in detail, as well as the respiratory action of the external and internal intercostal muscles, the mechanics of the diaphragm, and the quantitative compartmental models of the chest wall is also described. Additionally, flow in the airways is covered thoroughly, including the wave-speed and viscous expiratory flow-limiting mechanisms; convection, diffusion and the stationary front; and the distribution of ventilation. This is an ideal book for respiratory physiologists, pneumologists, exercise physiologists, and critical care physicians.

This book also:

Maximizes reader insights into current and landmark respiratory mechanics research concisely yet thoroughly explores the current research on pulmonary mechanics, the respiratory pump, and flow serves as an invaluable guide for those entering the field, or those seeking to expand their knowledge of it.

Atopic Dermatitis. Eczema
J. Ring.
SPRINGER. 1st ed. 2016, XX, 224 p. 101 illus., 99 illus. in color

- Concise, understandable information from basic science to very practical treatment recommendations.
- Personal thoughts of an expert with four decades of experience with the disease.
- Short summaries of the most important practical information at the end of each chapter for fast reading.

This book presents the state of the art in research into atopic dermatitis, or atopic eczema, and provides numerous effective practical management recommendations that are grounded in the immense clinical experience of the author. A scientific evidence-based approach to the subject is adopted, progressing from clinical symptoms in different disease stages, molecular genetics, and pathophysiology through to treatment and prevention. All aspects of patient management are covered, including diagnostics, avoidance strategies, emollient therapy, and acute treatment of eczema and itch. Diverse special therapeutic approaches are discussed, ranging from glucocorticoids, topical calcineurin inhibitors, and antimicrobial therapy through to UV therapy, allergen-specific immunotherapy, systemic immunosuppressive therapy, and emerging options. Environmental influences are considered, and there is a focus on the whole human being, with attention to psychosocial aspects of the disease and the benefit of educational programs such as "eczema schools". *Atopic Dermatitis* will be invaluable for dermatologists, allergists, pediatricians, and general practitioners and informative for other interested persons and sufferers.

Using and Understanding Medical Statistics
5TH revised and extended revision
Ed: D.E. Matthews (Waterloo, Ont.); V.T. Farewell (Cambridge)
KARGER. XX + 338 p., 48 fig., 103 tab., hard cover, 2015. Online supplementary material. ISBN 978-3-318-05458-3

The fifth revised edition of this highly successful book presents the mos extensive enhancement since *Using and Understanding Medical Statistics* was first published 30 years ago. Without question, the single greatest change has been the inclusion of source code, together with selected output, for the award-winning, open-source, statistical package known as R. This innovation has enabled the authors to de-emphasize formulae and calculations, and let software do all of the "heavy lifting".

This edition also introduces readers to several graphical statistical tools, such as Q-Q plots to check normality, residual plots for multiple regression models, funnel plots to detect publication bias in a meta-analysis and Bland-Altman plots for assessing agreement in clinical measurements. New examples that better serve the expository goals have been added to a half-dozen chapters. In addition, there are new sections describing exact confidence bands for the Kaplan-Meier estimator, as well as negative binomial and zero-inflated Poisson regression models for over-dispersed count data.

The end result is not only an excellent introduction to medical statistics, but also an invaluable reference for every discerning reader of medical research literature.