Medical Statistics has never been easier!

David E. Matthews
Vernon T. Farewell

Using and Understanding Medical Statistics
5th, revised and extended edition

The fifth revised edition of this highly successful book presents the most 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.

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A view into predator-prey interaction and its influence on evolution

The Neurobiology and Behavior of Predators and Prey

Editors
Elizabeth H. Catania
Kenneth C. Catania

Interactions between predator and prey can drive the evolution and diversification of nervous systems in astonishing ways. At the 2014 Karger Workshop, emerging leaders in the field presented highlights of some of the most compelling examples of co-evolved and specialized predators and prey. This subsequent special issue of Brain, Behavior and Evolution includes discussions on neurotoxins, ion channels, visual systems, auditory localization, muscle activation, and echolocation. The species and questions addressed are equally diverse: How do alligators and owls localize sounds? What do two bats do when chasing the same insect? Why do some newts carry enough neurotoxin to kill twenty humans? What rules govern killer fly attack behavior? How do electric eels remotely control prey? Why are beautiful cone snails a potential cornucopia of pharmaceuticals? Overall, this publication provides valuable insight into why predator-prey interactions hold a special place in the study of biology and evolution.

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Exploiting the Force of hyperpolarized 13C magnetic resonance spectroscopy to enlighten the Dark Side of the juvenile murine brain. For details see Chen et al., fig. 1b, p. 36.