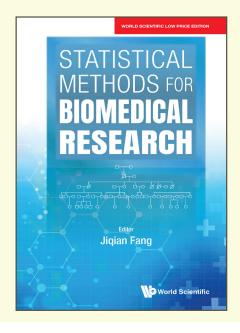




### **Statistical Methods for Biomedical Research**



Edited By Jiqian Fang

(Sun Yat-sen University, China)

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#### **ABOUT THE BOOK**

This book consists of four parts with 32 chapters adapted for four short courses, from the basic to the advanced levels of medical statistics (biostatistics), ideal for biomedical students. Part 1 is a compulsory course of Basic Statistics with descriptive statistics, parameter estimation and hypothesis test, simple correlation and regression. Part 2 is a selective course on *Study Design and Implementation* with sampling survey, interventional study, observational study, diagnosis study, data sorting and article writing. Part 3 is a specially curated course of *Multivariate Analyses* with complex analyses of variance, variety of regressions and classical multivariate analyses. Part 4 is a seminar course on *Introduction to Advanced Statistical Methods* with meta-analysis, time series, item response theory, structure equation model, multi-level model, bio-informatics, genetic statistics and data mining.

The main body of each chapter is followed by five practical sections: Report Writing, Case Discrimination, Computer Experiments, Frequently Asked Questions and Summary, and Practice & Think. Moreover, there are 2 attached Appendices, Appendix A includes Introductions to SPSS, Excel and R respectively, and Appendix B includes all the programs, data and printouts for Computer Experiments in addition to the Tests for Review and the reference answers for Case Discrimination as well as Practice & Think.

This book can be used as a textbook for biomedical students at both under- and postgraduate levels. It can also serve as an important guide for researchers, professionals and officers in the biomedical field.

#### **READERSHIP**

Biostatisticians, applied statisticians, medical researchers and clinicians, bioscience students, biopharmaceutical researchers, public health epidemiologists; biometricians& applied mathematicians.

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- Supplement for the Text
- Statistical Tables

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