

An introduction to a number of cutting-edge statistical methods for network biology that can be applied to the analysis of transcriptomic, proteomic, and metabolomic data sets. Written by computational biologists, biostatisticians, and systems biologists, this book is a valuable guide for graduate students and researchers in these fields, but is equally useful to experimental scientists interested in statistical systems approaches.

Matthias Dehmer studied mathematics at the University of Siegen, Germany, and received his PhD in computer science from the Technical University of Darmstadt. He began his academic career as a research fellow at Vienna Bio Center, Austria, and at Vienna University of Technology, and is currently a professor for bioinformatics and systems biology at UMIT – The Health and Life Sciences University in Hall, Austria. His research interests are in bioinformatics, systems biology, complex networks, and statistics. In particular, Matthias Dehmer is also working on machine learning-based methods to design new data analysis methods for solving problems in computational and systems biology.

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Prior to joining Novartis Oncology in 2010, **Armin Graber** served as the CEO and Chancellor of the University for Health Sciences, Medical Informatics, and Technology (UMIT), in Hall, Austria, where he was also professor in the Department of Biomedical Sciences and Engineering. He has held various senior positions in biotechnology in the USA and Europe, including VP for Translational Research at BG Medicine, CEO of Biocrates Life Sciences AG, and Head of Bioinformatics in the Applied Biosystems Discovery Proteomics and Small Molecule Research Center. His research interests comprise targeted and non-targeted functional genomic technologies, and bioinformatic and biostatistic methods for biomarker discovery, validation, and delivery.

Armindo Salvador studied biochemistry at the University of Lisbon, Portugal, where he received his PhD in theoretical biochemistry. He was a postdoctoral fellow at the University of Michigan, USA, and at the University of Coimbra, Portugal. He currently heads the Molecular Systems Biology Group at the Center for Neuroscience and Cell Biology, University of Coimbra, Portugal. Armindo Salvador's research interests are in the fields of molecular systems biology and computational biology. In particular, he is working toward clarifying the naturally evolved design principles of metabolic networks.