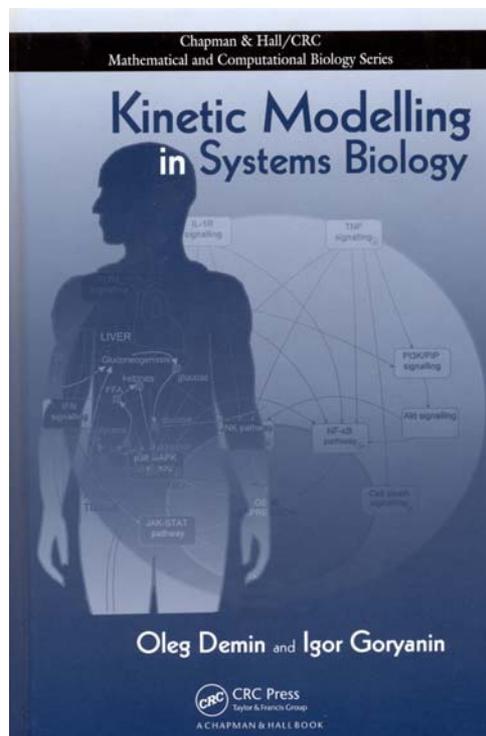


OLEG DEMIN, IGOR GORYANIN

KINETIC MODELLING IN SYSTEMS BIOLOGY



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One of the main topics in the future development of systems biology has been presented in **Kinetic Modelling in Systems Biology**. It explores both the methods and applications of kinetic modeling in this emerging field.

In the book has been introduced the basic biological cellular network concepts, explains the main aspects of the Edinburgh Pathway Editor (EPE) software package, and discusses the process of constructing and verifying kinetic models. It focuses on the features, user interface, and examples of DBSolve as well as the principles of modeling individual enzymes and transporters. Oleg Demin and Igor Goryanin describe how to construct kinetic models of intracellular systems on the basis of models of individual enzymes. and how to apply the principles of kinetic modeling to collect all available information on the energy metabolism of whole organelles, construct a kinetic model, and predict the response of the organelle to changes in external conditions.

This book will help readers understand the kinetic modeling approach and how to apply it to solve real-life problems.

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