

## CONTENTS

Introduction	v
Methylation of DNA may be Useful as a Computational Tool: Experimental Evidence	1
<i>Susannah Gal, Nancy Monteith, Sara Shkalim, Hu Huang and Tom Head</i>	
Dynamics of Random Boolean Networks	15
<i>James F. Lynch</i>	
Unknots and DNA	39
<i>Louis H. Kauffman and S. Lambropoulou</i>	
Developing a Mathematical Model of Phagocytosis: A Learning Process	69
<i>Nataša Macura, Tong Zhang and Arturo Casadevall</i>	
An Age Structured Model of T Cell Populations	79
<i>Brynja Kohler</i>	
Modeling and Simulation of Age- and Space-Structured Biological Systems	107
<i>Bruce P. Ayati</i>	
Nutrient-Plankton Interaction with a Toxin in a Variable Input Nutrient Environment	131
<i>Sophia R.-J. Jang and James Baglama</i>	
On the Mechanism of Strain Replacement in Epidemic Models with Vaccination	149
<i>Maia Martcheva</i>	