

Contents

Contributors	vii
Preface	
Allan C. Spradling	ix
Young Investigators Awards, 1991	xi
Abstract of the First Place Young Investigator Award	xii
 I. 50TH SYMPOSIUM LECTURE	
Chapter 1. Developmental Biology Has Come of Age	
Donald D. Brown	1
 II. 50TH SYMPOSIUM	
Chapter 2. Expression and Developmental Regulation of the Maize <i>Spm</i> Transposable Element	
J.A. Banks, P. Masson, and N.V. Fedoroff	9
Chapter 3. The Chicken Antibody Repertoire Is Generated by Gene Conversion During B Cell Development in the Bursa of Fabricius	
Elizabeth A. Hurley, Larry W. Tjoelker, and Craig B. Thompson	21
Chapter 4. Evolutionary Conservation of Developmental Mechanisms: DNA Elimination in <i>Drosophila</i>	
Allan C. Spradling, Gary Karpen, Robert Glaser, and Ping Zhang	39
Chapter 5. Specification of Reproductive Cells in <i>Volvox</i>	
Andrew Ransick	55
Chapter 6. The Evolution of Genes Regulating Developmental Commitments in Insects and Other Animals	
Richard W. Beeman, Susan J. Brown, Jeffrey J. Stuart, and Rob Denell	71

vi Contents

Chapter 7.	Evolution of Insect Pattern Formation: A Molecular Analysis of Short Germband Segmentation	
	Nipam H. Patel	85
Chapter 8.	Homeobox Genes in Plant Development: Mutational and Molecular Analysis	
	Erik Vollbrecht, Randy Kerstetter, Brenda Lowe, Bruce Veit, and Sarah Hake	111
Chapter 9.	Evolutionary Conservation of Developmental Mechanisms: Comparisons of Annelids and Arthropods	
	David A. Weisblat, Cathy J. Weeden, and Richard Kostriken	125
Chapter 10.	Inductive Signalling in <i>C. elegans</i>	
	Paul W. Sternberg, Russell J. Hill, and Helen M. Chamberlin	141
Chapter 11.	Spatial and Temporal Regulation of <i>Dictyostelium</i> Development Through Signal Transduction Pathways	
	J.A. Powell, G.R. Schnitzler, J.H. Hadwiger, P. Howard, R.K. Esch, A.B.Cubitt, K.Okaichi, C. Gaskins, S.K.O. Mann, and R.A. Firtel	159
Chapter 12.	Developmental and Molecular Responses to Touch in Plants	
	Janet Braam	185
Chapter 13.	Evolutionary Conservation of Developmental Mechanisms: The <i>Neurospora</i> Mating Type Locus	
	Charles A. Staben	199
Index	213