

CONTENTS

<i>List of contributors</i>	vii
<i>Preface</i>	xi
What is special about peptides as neuronal messengers? <i>J. Joosse</i>	1
Part I: Immunocytochemistry and Ultrastructure	
The new neurobiology — ultrastructural aspects of peptide release as revealed by studies of invertebrate nervous systems <i>D.W. Golding & D.V. Pow</i>	7
Immunocytochemistry of hormonal peptides in molluscs: optical and electron microscopy and the use of monoclonal antibodies <i>H.H. Boer & J. van Minnen</i>	19
Immunocytochemistry of insect peptides and amines <i>C. Rémy & J. Vieillemaringe</i>	43
Immunocytochemistry and ultrastructure of crustacean endocrine cells <i>G. Martin</i>	79
Part II: Arthropod Neurohormones	
Characterization of insect neuropeptides <i>W. Mordue & K.J. Siegert</i>	99
The isolation and characterisation of vertebrate-type peptides in insects <i>H. Duve & A. Thorpe</i>	115
Humoral functions of insect neuropeptides <i>C.H. Wheeler, G. Gäde & G.J. Goldsworthy</i>	141
Functions of aminergic and peptidergic skeletal motoneurons in insects <i>M. O'Shea, S. Hekimi, J. Witten & M.K. Worden</i>	159
Physiology and biochemistry of crustacean neurohormonal peptides <i>S.G. Webster & R. Keller</i>	173

vi *Contents*

Part III: Neurohormones in Coelenterates, Annelids and Protochordates	
Structure, location and possible actions of Arg–Phe–amide peptides in coelenterates	
<i>C.J.P. Grimmelikhuijzen, D. Graff & A.N. Spencer</i>	199
Neuropeptides and monoamines in annelids	
<i>M. Porchet & N. Dhainaut-Courtois</i>	219
Functional aspects of peptide neurohormones in protochordates	
<i>M.C. Thorndyke & D. Georges</i>	235
Part IV: Neurohormones in Molluscs	
Bioactive peptides in molluscs	
<i>W.P.M. Geraerts, E. Vreugdenhil & R.H.M. Ebberink</i>	261
Actions and roles of the FMRFamide peptides in <i>Helix</i>	
<i>G.A. Cottrell, N.W. Davies, J. Turner & A. Oates</i>	283
Evolution of peptide hormones: an <i>Aplysia</i> CRF-like peptide	
<i>R. Taussig, J.R. Nambu & R.H. Scheller</i>	299
<i>Index</i>	311