CONTENTS

TREHERNE, J. E. Preface .................................................. 1

NICHOLLS, JOHN. Introduction. Perspectives on the cell biology of glia .................. 3

LANE, NANCY J. Invertebrate neuroglia-junctional structure and development ........... 7

LANDIS, DENNIS M. D. and REESE, THOMAS S. Membrane structure in mammalian astrocytes: a review of freeze-structure studies on adult, developing, reactive and cultured astrocytes ........................................... 35

ORKAND, R. K., ORKAND, P. M. and TANG, C-M. Membrane properties of neuroglia in the optic nerve of Necturus . ................................................................. 49

TREHERNE, J. E. and SCHOFIELD, P. K. Mechanisms of ionic homeostasis in the central nervous system of an insect ................................................................. 61

COLES, J. A. and TSACOPOULOS, M. Ionic and possible metabolic interactions between sensory neurones and glial cells in the retina of the honeybee drone ........................................ 75

SYKOVA, Eva. K+ changes in the extracellular space of the spinal cord and their physiological role ................................................................. 93

GARDNER-MEDWIN, A. R. Possible roles of vertebrate neuroglia in potassium dynamics, spreading depression and migraine .................................................. 111

SOMJEN, GEORGE G. Neuroglia and spinal fluids .................................................... 129

VILLEGAS, JORGE. Axon/Schwann-cell relationships in the giant nerve fibre of the squid ................................................................. 135

LAKE, RAYMOND J. and TYTELL, MICHAEL A. Macromolecular transfer from glia to the axon ................................................................. 153

ROOTS, BETTY I. Comparative studies on glial markers ............................................ 167

CURRIE, D. NEIL and KELLY, JOHN S. Glial versus neuronal uptake of glutamate .... 181

MUDGE, ANNE W. Effect of non-neuronal cells on peptide content of cultural sensory neurones ................................................................. 195

SCHACHER, SAMUEL M. The role of support cells in the growth and differentiation of neurones in the abdominal ganglion of Aplysia ........................................... 205

BROCKES, J. P., FRYXELL, K. J. and LEMKE, G. E. Studies on cultured Schwann cells: the induction of myelin synthesis, and the control of their proliferation by a new growth factor ........................................... 215

AGUAYO, ALBERT J., DAVID, SAMUEL and BRAY, GARTH M. Influences of the glial environment on the elongation of axons after injury: transplantation studies in adult rodents ................................................................. 231

Photographs of the Discussion Meeting