

Contents

Preface	v
Contributors	ix
1 Microglia: A CNS-Specific Tissue Macrophage	1
Shweta S. Puntambekar, Jonathan M. Doose, and Monica J. Carson	
2 Mechanisms of Microglial Activation by Amyloid Precursor Protein and its Proteolytic Fragments	13
S.A. Austin and C.K. Combs	
3 Pericytes	33
Martin Krüger and Ingo Bechmann	
4 Imaging Microglia in the Central Nervous System: Past, Present and Future	45
Dimitrios Davalos and Katerina Akassoglou	
5 Cytokines in CNS Inflammation and Disease	59
Malú G. Tansey and Tony Wyss-Coray	
6 Arachidonic Acid Metabolites: Function in Neurotoxicity and Inflammation in the Central Nervous System	107
K. Andreasson and T.J. Montine	
7 Pattern Recognition Receptors in CNS Disease	131
Pamela A. Carpentier, D'Anne S. Duncan, and Stephen D. Miller	
8 Central Nervous System Diseases and Inflammation	153
Andrea J. Tenner and Karntipa Pisalyaput	
9 Chemokines and Autoimmune Demyelination	175
Michaela Fux, Jason Millward, and Trevor Owens	

10 Chemokine Actions in the CNS: Insights from Transgenic Mice	203
Marcus Müller and Iain L. Campbell	
11 Chemokines and Spinal Cord Injury	221
Maya N. Hatch and Hans S. Keirstead	
12 The Usual Suspects: Chemokines and Microbial Infection of the Central Nervous System	235
Michelle J. Hickey, Linda N. Stiles, Chris S. Schaumburg, and Thomas E. Lane	
13 CNS Dendritic Cells in Inflammation and Disease	263
Samantha L. Bailey and Stephen D. Miller	
14 MHC Class I Expression and CD8 T Cell Function: Towards the Cell Biology of T-APC Interactions in the Infected Brain.	277
Cornelia Bergmann and Pedro Lowenstein	
Index	307