

# Contents

<b>1 Introduction</b> .....	1
Katrin Scheinemann and Eric Bouffet	
<b>2 Presentation of Central Nervous System Tumors</b> .....	3
Ali Amid, Daniel L. Keene, and Donna L. Johnston	
<b>3 Epidemiology of Central Nervous System Tumors</b> .....	9
Daniel L. Keene and Donna L. Johnston	
<b>4 Pediatric Neuroimaging</b> .....	13
Nina Rodrigues Stein and Luciana Torres Ribeiro	
<b>5 Neurosurgery</b> .....	31
Sami Obaid, Pierre-Olivier Champagne, Claude Mercier, and Louis Crevier	
<b>6 Histopathological Features of Common Pediatric Brain Tumors</b> .....	41
Phedias Diamandis, Alaa Alkhotani, Jennifer A. Chan, and Cynthia E. Hawkins	
<b>7 Basic Science of Pediatric Brain Tumors</b> .....	59
Stephen C. Mack, Vijay Ramaswamy, Xin Wang, Marc Remke, Patrick Sin-Chan, Tiffany Sin Yu Chan, Kelsey C. Bertrand, Diana Merino, Kory Zayne, Annie Huang, and Michael D. Taylor	
<b>8 Cancer Predisposition in Children with Brain Tumors</b> .....	69
Uri Tabori, Anne-Marie Laberge, Benjamin Ellezam, and Anne-Sophie Carret	
<b>9 Low Grade Glioma</b> .....	91
Katrin Scheinemann and Juliette Hukin	
<b>10 High-Grade Glioma</b> .....	101
Magimairajan Issai Vanan, Vivek Mehta, and David D. Eisenstat	
<b>11 Diffuse Intrinsic Pontine Glioma</b> .....	117
Magimairajan Issai Vanan, Vivek Mehta, and David D. Eisenstat	

<b>12 Embryonal Brain Tumors</b> .....	127
Tiffany Sin Yu Chan, Xin Wang, Tara Spence, Michael D. Taylor, and Annie Huang	
<b>13 Ependymoma</b> .....	139
Juliette Hukin, John-Paul Kilday, and Uri Tabori	
<b>14 Central Nervous System Germ Cell Tumors (CNS-GCT)</b> .....	149
Ute Bartels and Ash Singhal	
<b>15 Atypical Teratoid Rhabdoid Tumors</b> .....	163
Lucie Lafay-Cousin, Douglas R. Strother, Jennifer A. Chan, Jonathon Torchia, and Annie Huang	
<b>16 Craniopharyngioma</b> .....	173
David Phillips, Patrick J. McDonald, and Ute Bartels	
<b>17 Rare Tumours of the Central Nervous System in Children</b> .....	185
Adam J. Fleming	
<b>18 Radiotherapy</b> .....	195
Anne-Marie Charpentier, Carolyn Freeman, David Roberge, and Pierre Rousseau	
<b>19 Chemotherapy</b> .....	207
Joan Lee and Donna L. Johnston	
<b>20 Targeted Therapies in Paediatric Brain Tumours</b> .....	217
John-Paul Kilday, Nada Jabado, and Eric Bouffet	
<b>21 High-Dose Chemotherapy/Stem Cell Transplantation (HDSCT)</b> .....	227
Victor Anthony Lewis and Shahrad Rod Rassekh	
<b>22 Supportive Care</b> .....	237
Beverly A. Wilson, Karina L. Black, and Samina Afzal	
<b>23 Long-Term Sequelae</b> .....	253
Sebastien Perreault and Anne-Sophie Carret	
<b>24 Neuropsychological Outcomes in Pediatric Brain Tumor Survivors</b> .....	267
Laura Janzen, Donald Mabbott, and Sharon L. Guger	
<b>25 Quality of Life</b> .....	277
Annie-Jade Pépin, Anne-Sophie Carret, and Serge Sultan	
<b>26 Palliative Care for Children with Brain Tumors</b> .....	289
Lisa Pearlman, Shayna Zelcer, and Donna L. Johnston	
<b>27 Pediatric Neuro-Oncology in Countries with Limited Resources</b> .....	299
Eric Bouffet, Nisreen Amayiri, Adriana Fonseca, and Katrin Scheinemann	
<b>Index</b> .....	309