

Contents

1	High-Resolution Synaptic Connectomics.....	1
	Robert E. Marc, Bryan W. Jones, Crystal Sigulinsky, James R. Anderson and J. Scott Lauritzen	
2	Decoding the Transcriptome of Neuronal Circuits	29
	Paul J. Bonthuis and Christopher Gregg	
3	Fluorescent Proteins for Neuronal Imaging	57
	Yongxin Zhao and Robert E. Campbell	
4	The Voltage Imaging Frontier.....	97
	Adam D. Douglass	
5	Discovery and Development of Spectrally Diverse Channelrhodopsins (ChR) for Neurobiological Applications	129
	John Y. Lin, Per M. Knutsen and Arnaud Muller	
6	Optogenetics in <i>Drosophila melanogaster</i>	147
	Sung Soo Kim, Romain Franconville, Dan Turner-Evans and Vivek Jayaraman	
7	Optically Monitoring and Manipulating Brain and Behavior in <i>C. elegans</i>	177
	Linjiao Luo, Quan Wen and Aravinthan D. T. Samuel	
8	Sensorimotor Integration in the Spinal Cord, from Behaviors to Circuits: New Tools to Close the Loop?	197
	Claire Wyart and Steven Knafo	

9	Patterned Photostimulation in the Brain	235
	Francesca Anselmi, Arkarup Banerjee and Dinu F. Albeanu	
10	Beyond Localization of Function: Dissecting a Neural Code with Optogenetics	271
	Matthew C. Smear	
	Index	293

New Techniques in Systems Neuroscience

Douglass, A. (Ed.)

2015, X, 301 p. 72 illus., 64 illus. in color., Hardcover

ISBN: 978-3-319-12912-9