

Epigenetic information- processing mechanisms in the brain

*Papers of a Theme Issue compiled and
edited by Lawrence Edelstein,
John Smythies and Denis Noble*

Contents

	Article ID
INTRODUCTION	
Introduction L Edelstein, J Smythies and D Noble	20130501
PART I: TRANSCRIPTION FACTORS AND METHYLATION	
DNA modifications in the mammalian brain J Shin, G-L Ming and H Song	20130512
An evolving view of epigenetic complexity in the brain IA Qureshi and MF Mehler	20130506
The methylated-DNA binding protein MBD2 enhances NGF1-A (egr-1)- mediated transcriptional activation of the glucocorticoid receptor ICG Weaver, IC Hellstrom, SE Brown, SD Andrews, S Dymov, J Diorio, T-Y Zhang, M Szyf and MJ Meaney	20130513
PART II: miRNA	
Long-term climbing fibre activity induces transcription of microRNAs in cerebellar Purkinje cells NH Barmack, Z Qian and V Yakhnitsa	20130508
Systematic identification of 3'-UTR regulatory elements in activity-dependent mRNA stability in hippocampal neurons JE Cohen, PR Lee and RD Fields	20130509
MicroRNA-8 promotes robust motor axon targeting by coordinate regulation of cell adhesion molecules during synapse development CS Lu, B Zhai, A Mauss, M Landgraf, S Gygi and DV Vactor	20130517
The role of long non-coding RNAs in neurodevelopment, brain function and neurological disease TC Roberts, KV Morris and MJA Wood	20130507
The RNA-centred view of the synapse: non-coding RNAs and synaptic plasticity NR Smalheiser	20130504
PART III: INTERCELLULAR COMMUNICATION—BASIC INSIGHT	
Extracellular-vesicle type of volume transmission and tunnelling-nanotube type of wiring transmission add a new dimension to brain neuro-glia networks LF Agnati and K Fuxe	20130505
The role of epigenetic-related codes in neurocomputation: dynamic hardware in the brain L Edelstein and J Smythies	20130519
Multifaceted effects of oligodendroglial exosomes on neurons: impact on neuronal firing rate, signal transduction and gene regulation D Fröhlich, WP Kuo, C Frühbeis, J-J Sun, CM Zehendner, HJ Luhmann, S Pinto, J Toedling, J Trotter and E-M Krämer-Albers	20130510

Extracellular vesicles as modulators of cell-to-cell communication in the healthy and diseased brain DM Pegtel, L Peferoen and S Amor	20130516
Postnatal signalling with homeoprotein transcription factors A Prochiantz, J Fuchs and AA Di Nardo	20130518
PART IV: INTERCELLULAR COMMUNICATION—CLINICAL INSIGHT	
MicroRNAs and synaptic plasticity—a mutual relationship A Aksoy-Aksel, F Zampa and G Schrott	20130515
Epigenetic setting and reprogramming for neural cell fate determination and differentiation T Imamura, M Uesaka and K Nakashima	20130511
Analysis of the RNA content of the exosomes derived from blood serum and urine and its potential as biomarkers M Li, E Zeringer, T Barta, J Schageman, A Cheng and AV Vlassov	20130502
Regulation of histone H3K4 methylation in brain development and disease E Shen, H Shulha, Z Weng and S Akbarian	20130514
Exosome platform for diagnosis and monitoring of traumatic brain injury DD Taylor and C Gercel-Taylor	20130503