editorial

Making the most of transgenic mice ........................................ 429

news and views

Calcium tsunamis: do astrocytes transmit cell death messages via gap junctions during ischemia?  
Samantha L. Budd and Stuart A. Lipton  
SEE ARTICLE, PAGE 494

Ion-binding sites in NMDA receptors: classical approaches provide the numbers  
Mark Mayer  
SEE ARTICLE, PAGE 451

Interneurons and the ghost of the sea  
Istvan Mody  
SEE ARTICLES, PAGES 470 AND 479

Axon guidance mechanisms: semaphorins as simultaneous repellents and anti-repellents  
Hang Chen, Zhigang He and Marc Tessier-Lavigne  
SEE ARTICLE, PAGE 487

The genetics of social behavior in worms  
Sandra Aamodt

book review

The First Steps in Seeing  
by R. W. Rodieck  
REVIEWED BY HELGA KOLB

scientific correspondence

Bimanual coupling in amputees with phantom limbs  
E A Franz and V S Ramachandran
review

Unraveling the central nervous system pathways underlying responses to leptin  .................................................. 445
J K Elmquist, E Maratos-Flier, C B Saper and J S Flier

articles

Binding sites for permeant ions in the channel of NMDA receptors and their effects on channel block  .................................................. 451
S M Antonov, V E Gmiro and J W Johnson

Formation of intermediate-conductance calcium-activated potassium channels by interaction of Slack and Slo subunits  .................................................. 462
W J Joiner, M D Tang, L-Y Wang, S I Dworetzky, C G Boissard, L Gan, V K Gribkoff and L K Kaczmarek

GluR5 kainate receptor activation in interneurons increases tonic inhibition of pyramidal cells  .................................................. 470
R Cossart, M Esclapez, J C Hirsch, C Bernard and Y Ben-Ari

Synaptic activation of kainate receptors on hippocampal interneurons  .................................................. 479
M Frerking, R C Malenka and R A Nicoll

Semaphorins A and E act as antagonists of neuropilin-1 and agonists of neuropilin-2 receptors  .................................................. 487
T Takahashi, F Nakamura, Z Jin, R G Kalb and S M Strittmatter

Gap-junction-mediated propagation and amplification of cell injury  .................................................. 494
J H-C Lin, H Weigel, M L Cotrina, S Liu, E Bueno, A J Hansen, T W Hansen, S Goldman and M Nedergaard

Coding of visual information by precisely correlated spikes in the lateral geniculate nucleus  .................................................. 501
Y Dan, J-M Alonso, W M Usrey and R C Reid

Visual interactions in the path of apparent motion  .................................................. 508
S Yantis and T Nakama

Gating of auditory responses in the vocal control system of awake songbirds  .................................................. 513
M F Schmidt and M Konishi

Long-term temporal integration in the anuran auditory system  .................................................. 519
T B Alder and G J Rose

Functional anatomy of saccadic adaptation in humans  .................................................. 524
M Desmurget, D Pélisson, C Urquizar, C Prablanc, G E Alexander and S T Grafton

Maintaining internal representations: the role of the human superior parietal lobe  .................................................. 529
D M Wolpert, S J Goodbody and M Husain

classified advertising

see back pages