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- 2631 Presynaptic Calcium and Serotonin-mediated Enhancement of Transmitter Release at Crayfish Neuromuscular Junction K. Delaney, D.W. Tank, and R.S. Zucker
- 2644 The Origin of Thalamic Inputs to the "Hand" Representation in the Primary Motor Cortex J.W. Holsapple, J.B. Preston, and P.L. Strick
- 2655 Biochemical Studies of Stimulus Convergence during Classical Conditioning in *Aplysia*: Dual Regulation of Adenylate Cyclase by Ca<sup>2+</sup>/Calmodulin and Transmitter *T.W. Abrams, K.A. Karl, and E.R. Kandel*
- 2666 Dopamine D<sub>2</sub> Mechanisms in Canine Narcolepsy
  S. Nishino, J. Arrigoni, D. Valtier, J.D. Miller, C. Guilleminault, W.C. Dement, and
  E. Mignot
- 2672 Does Low Intracellular pH Stop the Motion of the Bulla Circadian Pacemaker? S.B.S. Khalsa, M.R. Ralph, and G.D. Block
- 2680 Temporal Patterns of Muscle Activation for Arm Movements in Three-dimensional Space *M. Flanders*
- 2694 Extracellular Dopamine and Neurotensin in Rat Prefrontal Cortex *in vivo*: Effects of Median Forebrain Bundle Stimulation Frequency, Stimulation Pattern, and Dopamine Autoreceptors *A.J. Bean and R.H. Roth*
- 2703 Amphetamine, Cocaine, and Fencamfamine: Relationship between Locomotor and Stereotypy Response Profiles and Caudate and Accumbens Dopamine Dynamics *R. Kuczenski, D.S. Segal, and M.L. Aizenstein*
- 2713 The Characterization and Localization of the Glutamate Receptor Subunit GluR1 in the Rat Brain S.W. Rogers, T.E. Hughes, M. Hollmann, G.P. Gasic, E.S. Deneris, and S. Heinemann
- 2725 Regulatory Properties of Brain Glutamate Decarboxylase (GAD): The Apoenzyme of GAD Is Present Principally as the Smaller of Two Molecular Forms of GAD in Brain D.L. Martin, S.B. Martin, S.J. Wu, and N. Espina
- 2732 Extracellular Serotonin Levels Change with Behavioral State but Not with Pyrogen-induced Hyperthermia L.O. Wilkinson, S.B. Auerbach, and B.L. Jacobs
- 2742 Rod Bipolar Cells in the Macaque Monkey Retina: Immunoreactivity and Connectivity U. Grünert and P.R. Martin

- 2759 Protein Kinase C Alteration Is an Early Biochemical Marker in Alzheimer's Disease E. Masliah, G.M. Cole, L.A. Hansen, M. Mallory, T. Albright, R.D. Terry, and T. Saitoh
- 2768 The Response of Area MT and V1 Neurons to Transparent Motion R.J. Snowden, S. Treue, R.G. Erickson, and R.A. Andersen
- 2786 Excitatory Synaptic Potentials in Kainic Acid–denervated Rat CA1 Pyramidal Neurons D.A. Turner and H.V. Wheal
- 2795 Mossy Fiber Synaptic Reorganization Induced by Kindling: Time Course of Development, Progression, and Permanence J.E. Cavazos, G. Golarai, and T.P. Sutula
- 2804 The Postsynaptic Inhibitory Control of Lumbar Motoneurons during the Atonia of Active Sleep: Effect of Strychnine on Motoneuron Properties *P.J. Soja, F. López-Rodríguez, F.R. Morales, and M.H. Chase*
- 2812 Low-Threshold Transient Calcium Current in Rat Hippocampal Lacunosum-Moleculare Interneurons: Kinetics and Modulation by Neurotransmitters D.D. Fraser and B.A. MacVicar
- 2821 Compensatory Elevation of Acetylcholine Synthesis *in vivo* by Cholinergic Neurons Surviving Partial Lesions of the Septohippocampal Pathway *P.A. Lapchak, D.J. Jenden, and F. Hefti*
- 2829 Regulation of Putative Muscle-derived Neurotrophic Factors by Muscle Activity and Innervation: *in vivo* and *in vitro* Studies L.J. Houenou, J.L. McManaman, D. Prevette, and R.W. Oppenheim
- 2838 Hippocampal Inputs to Identified Neurons in an *in vitro* Slice Preparation of the Rat Nucleus Accumbens: Evidence for Feed-Forward Inhibition *C.M.A. Pennartz and S.T. Kitai*
- 2848 Interaction of Neurotransmitter Systems in the Hippocampus: A Study of Some Behavioral Effects of Hippocampal Sympathetic Ingrowth *V. Ayyagari, L.E. Harrell, and D.S. Parsons*
- 2855 Quantitative Pharmacological Analysis of 2-<sup>125</sup>I-Iodomelatonin Binding Sites in Discrete Areas of the Chicken Brain J.A. Siuciak, D.N. Krause, and M.L. Dubocovich
- 2865 Outward Currents in Isolated Ventral Cochlear Nucleus Neurons *P.B. Manis and S.O. Marx*
- 2881 Evidence that Protein Constituents of Postsynaptic Membrane Specializations Are Locally Synthesized: Analysis of Proteins Synthesized within Synaptosomes A. Rao and O. Steward
- 2896 A Comparative Study of the Behavioral Deficits following Lesions of Various Parts of the Zebra Finch Song System: Implications for Vocal Learning C. Scharff and F. Nottebohm
- 2914 Amelioration of Delayed Neuronal Death in the Hippocampus by Nerve Growth Factor T. Shigeno, T. Mima, K. Takakura, D.I. Graham, G. Kato, Y. Hashimoto, and S. Furukawa

- 2920 The Remodeling of Synaptic Extracellular Matrix and Its Dynamic Relationship with Nerve Terminals at Living Frog Neuromuscular Junctions L. Chen, D.B. Folsom, and C.-P. Ko
- 2931 Pontomedullary Glutamate Receptors Mediating Locomotion and Muscle Tone Suppression Y.Y. Lai and J.M. Siegel
- 2938 Axonal Transport Kinetics and Posttranslational Modification of Synapsin I in Mouse Retinal Ganglion Cells T.C. Petrucci, P. Macioce, and P. Paggi
- 2947 Chronic Application of NMDA Decreases the NMDA Sensitivity of the Evoked Tectal Potential in the Frog *E.A. Debski, H.T. Cline, J.W. McDonald, and M. Constantine-Paton*

**Cover picture:** False color images obtained from ratiometric measurements of fura-2 filled axon and presynaptic terminals of the inhibitor motor neuron innervating the crayfish (*Procambrus clarkii*) claw opener muscle. Top left: raw 380 nm excited fluorescent image. The uniform purple color in the next lower image indicates resting calcium concentration of approximately 150 nm prior to stimulation. Stimulating action potentials in the axon at a rate of 40/sec results in a rapid rise in calcium concentration which is greater in presynaptic terminal boutons than in adjacent axon. Orange to red pseudocolor corresponds to between 1.0 and 1.5  $\mu$ M calcium. Image pairs were collected every 1.8 sec during stimulation of axon. The last image was obtained during 1.8 sec immediately after termination of action potential train. The largest terminal is 6  $\mu$ m by 10  $\mu$ m. (See Delaney et al., pp. 2631–2643.)

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