

The Journal of Neuroscience

The Official Journal of
the Society for Neuroscience

December 1987
Volume 7 Number 12

- 3813 Pilar, G., R. Nuñez, I.S. McLennan, and S.D. Meriney: Muscarinic and Nicotinic Synaptic Activation of the Developing Chicken Iris
- 3827 Meriney, S.D., and G. Pilar: Cholinergic Innervation of the Smooth Muscle Cells in the Choroid Coat of the Chick Eye and Its Development
- 3840 Meriney, S.D., G. Pilar, M. Ogawa, and R. Nuñez: Differential Neuronal Survival in the Avian Ciliary Ganglion After Chronic Acetylcholine Receptor Blockade
- 3850 Florence, S.L., and V.A. Casagrande: Organization of Individual Afferent Axons in Layer IV of Striate Cortex in a Primate
- 3869 Larocca, J.N., R.W. Ledeen, B. Dvorkin, and M.H. Makman: Muscarinic Receptor Binding and Muscarinic Receptor-Mediated Inhibition of Adenylate Cyclase in Rat Brain Myelin
- 3877 Ross, W.N., H. Arechiga, and J.G. Nicholls: Optical Recording of Calcium and Voltage Transients Following Impulses in Cell Bodies and Processes of Identified Leech Neurons in Culture
- 3888 Fibiger, H.C., F.G. LePiane, A. Jakubovic, and A.G. Phillips: The Role of Dopamine in Intracranial Self-Stimulation of the Ventral Tegmental Area
- 3897 Freedman, J.E., and G.K. Aghajanian: Role of Phosphoinositide Metabolites in the Prolongation of Afterhyperpolarizations by α_1 -Adrenoceptors in Rat Dorsal Raphe Neurons
- 3907 Krebs, K.E., I.S. Zagon, and S.R. Goodman: Amelin: A 4.1-Related Spectrin-Binding Protein Found in Neuronal Cell Bodies and Dendrites
- 3915 Gerfen, C.R., M. Herkenham, and J. Thibault: The Neostriatal Mosaic: II. Patch- and Matrix-Directed Mesostriatal Dopaminergic and Non-Dopaminergic Systems
- 3935 Gerfen, C.R., K.G. Baimbridge, and J. Thibault: The Neostriatal Mosaic. III. Biochemical and Developmental Dissociation of Patch-Matrix Mesostriatal Systems
- 3945 Arbas, E.A., and R.L. Calabrese: Ionic Conductances Underlying the Activity of Interneurons That Control Heartbeat in the Medicinal Leech
- 3953 Arbas, E.A., and R.L. Calabrese: Slow Oscillations of Membrane Potential in Interneurons That Control Heartbeat in the Medicinal Leech

Cover picture: Scanning electron micrograph (65° tilt) of neuron 5 isolated from the buccal ganglion of the mollusc, *Helisoma trivolvis*, grown in brain conditioned medium for 3 d on a polylysine coated petri dish. Small vesicles can be seen below the plasma membrane surface and within the neurite extensions. After fixation, the neuron was coated with a thin layer of gold-palladium and viewed at 20 kV in a Hitachi scanning electron microscope. Micrograph kindly provided by Dr. Robert Berdan, Garry Hauser, and Andy Bulloch of the Department of Physiology, University of Calgary, Canada.

- 3961 Kilts, C.D., C.M. Anderson, T.D. Ely, and J.K. Nishita: Absence of Synthesis-Modulating Nerve Terminal Autoreceptors on Mesoamygdaloid and Other Mesolimbic Dopamine Neuronal Populations
- 3976 Akers, R.F., and A. Routtenberg: Calcium-Promoted Translocation of Protein Kinase C to Synaptic Membranes: Relation to the Phosphorylation of an Endogenous Substrate (Protein F1) Involved in Synaptic Plasticity
- 3984 Tuchscherer, M.M., C. Knox, and V.S. Seybold: Substance P and Cholecystokinin-like Immunoreactive Varicosities in Somatosensory and Autonomic Regions of the Rat Spinal Cord: A Quantitative Study of Coexistence
- 3996 Keyser, K.T., H.J. Karten, B. Katz, and M.C. Bohn: Catecholaminergic Horizontal and Amacrine Cells in the Ferret Retina
- 4005 Whiting, P.J., R. Liu, B.J. Morley, and J.M. Lindstrom: Structurally Different Neuronal Nicotinic Acetylcholine Receptor Subtypes Purified and Characterized Using Monoclonal Antibodies
- 4017 Barasch, J.M., H. Tamir, E.A. Nunez, and M.D. Gershon: Serotonin-Storing Secretory Granules from Thyroid Parafollicular Cells
- 4034 Mattson, M.P., and S.B. Kater: Calcium Regulation of Neurite Elongation and Growth Cone Motility
- 4044 Armstrong, R., A.D. Toews, and P. Morrell: Rapid Axonal Transport in Focally Demyelinated Sciatic Nerve
- 4054 Brunken, W.J., and N.W. Daw: The Actions of Serotonergic Agonists and Antagonists on the Activity of Brisk Ganglion Cells in the Rabbit Retina
- 4066 Snipes, G.J., S.Y. Chan, C.B. McGuire, B.R. Costello, J.J. Norden, J.A. Freeman, and A. Routtenberg: Evidence for the Coidentification of GAP-43, a Growth-Associated Protein, and F1, a Plasticity-Associated Protein
- 4076 Hyman, C., and K.H. Pfenninger: Intracellular Regulators of Neuronal Sprouting: II. Phosphorylation Reactions in Isolated Growth Cones
- 4084 Yeakley, J.M., J.L. Janavs, and C.G. Reiness: Muscle Activity Pattern Regulates Postnatal Development of Acetylcholinesterase Molecular Forms in Normal Mice and Mice with Motor Endplate Disease
- 4095 Tanaka, Jr., D.: Differential Laminar Distribution of Corticostriatal Neurons in the Prefrontal and Pericruciate Gyri of the Dog
- 4107 Booker, R., and J.W. Truman: Postembryonic Neurogenesis in the CNS of the Tobacco Hornworm, *Manduca sexta*. II. Hormonal Control of Imaginal Nest Cell Degeneration and Differentiation During Metamorphosis
- 4115 Voigt, T., and H. Wässle: Dopaminergic Innervation of A II Amacrine Cells in Mammalian Retina
- 4129 Markowitz, S., K. Saito, and M.A. Moskowitz: Neurogenically Mediated Leakage of Plasma Protein Occurs from Blood Vessels in Dura Mater But Not Brain
- 4137 Snow, P.M., N.H. Patel, A.L. Harrelson, and C.S. Goodman: Neural-Specific Carbohydrate Moiety Shared by Many Surface Glycoproteins in *Drosophila* and Grasshopper Embryos
- 4145 Murphy, S.N., S.A. Thayer, and R.J. Miller: The Effects of Excitatory Amino Acids on Intracellular Calcium in Single Mouse Striatal Neurons *in vitro*

4159	Burstein, R., K.D. Cliffer, and G.J. Giesler, Jr.: Direct Somatosensory Projections from the Spinal Cord to the Hypothalamus and Telencephalon
4165	Blair, S.S., M.A. Murray, and J. Palka: The Guidance of Axons from Transplanted Neurons Through Aneural <i>Drosophila</i> Wings
4176	Soileau, L.C., L. Silberstein, H.M. Blau, and W.J. Thompson: Reinnervation of Muscle Fiber Types in the Newborn Rat Soleus
4195	Branton, W.D., L. Kolton, Y.N. Jan, and L.Y. Jan: Neurotoxins from <i>Plectreurys</i> Spider Venom are Potent Presynaptic Blockers in <i>Drosophila</i>
4201	Dickinson, M.H., and J. Palka: Physiological Properties, Time of Development, and Central Projection Are Correlated in the Wing Mechanoreceptors of <i>Drosophila</i>
4209	Pearson, J.C., L.H. Finkel, and G.M. Edelman: Plasticity in the Organization of Adult Cerebral Cortical Maps: A Computer Simulation Based on Neuronal Group Selection
4224	Acknowledgment
4226	Author Index
4230	Subject Index
i	Volume Contents

Notice to Contributors: Effective as of January 1, 1988, Dr. Dale Purves of the Department of Anatomy and Neurobiology, Washington University School of Medicine, will serve as Interim Editor-in-Chief of the *Journal of Neuroscience*.

Papers submitted to the Journal should be sent to Dr. Purvis at the Editorial Office, McDonnell Center for the Study of Higher Brain Function, Box 8057, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110. As in the past, the original and two copies of the manuscript and figures should be sent to the Editorial Office and at the same time one copy should be sent to the relevant Section Editor. The names and addresses of the Section Editors are listed in the Instructions to Authors which appear in the January issue. Copies of the Instructions can be obtained by writing the Society for Neuroscience, 11 Dupont Circle, N.W., Suite 500, Washington, DC 20036.

The Journal of Neuroscience (ISSN 0270-6474) is the official journal of the Society for Neuroscience. It is published monthly for the Society, one volume a year, by Oxford University Press, 200 Madison Avenue, New York, NY 10016.

Subscriptions are on a per-volume basis beginning with the January issue. The volume 7 (1987) rates for the U.S. are \$150 for individuals and \$350 for institutions. Outside the U.S. add \$60; single copies are \$30. Student subscription rates are available only through the Society for Neuroscience. Institutional (multiple-reader) rates apply to libraries, schools, hospitals, clinics, group practices, and federal, commercial, and private institutions and organizations. Address subscription and back issue requests to the Journals Department, Oxford University Press, 16-00 Pollitt Drive, Fair Lawn, NJ 07410.

Change of Address notifications must be sent to Oxford's Journals Department at least 60 days in advance. Journals undeliverable because of incorrect addresses will be destroyed. Duplicates can be obtained (if available) from Oxford at the regular price of single issues.

Advertising inquiries should be addressed to Donald Pfarr, Williams & Wilkins, 428 E. Preston Street, Baltimore, MD 21202, telephone 301-528-4000.

Microfilm inquiries should be directed to the Journals Department, Oxford University Press, 16-00 Pollitt Drive, Fair Lawn, NJ 07410.

Reprints of individual articles are available only from the authors.

Japanese yen price is available from our sole agent: Kinokuniya Publications Co., Ltd., Journals Department, P.O. Box 55 Chitose, Tokyo 156, Japan.

Postmaster: Second class postage paid at Washington, DC, and at additional mailing offices; send address changes to the Journals Department, Oxford University Press, 16-00 Pollitt Drive, Fair Lawn, NJ 07410.

The Journal of Neuroscience is indexed by *Current Contents* and *Index Medicus*.

Copyright © 1987 Society for Neuroscience.
All rights reserved.