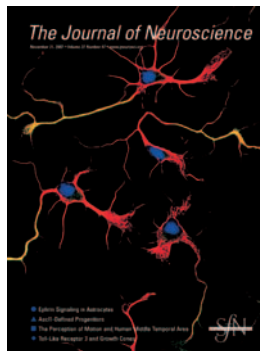


The Journal of Neuroscience

November 21, 2007 • Volume 27 Number 47 www.jneurosci.org



Cover legend: Pak1 activation mirrors axon specification. Rat embryo hippocampal neurons maintained *in vitro* for 2 d exhibiting restricted activation of Pak1 (green) only in the longest neurite, which is considered the most likely future axon. Pak1 activation was detected using a S199/204 phospho-specific antibody. Neuronal identity was confirmed with immunoreactivity for β III-tubulin (red), and the nuclei were visualized with DAPI staining (blue). This is the first time Pak1 has been shown to play a role in the establishment of neuronal polarity. For more information, see the article by Jacobs et al. in the August 8, 2007 issue (pages 8604–8615) (<http://www.jneurosci.org/cgi/content/abstract/27/32/8604>).

i This Week in The Journal

Toolbox

- 12757 **Stepping into the Third Dimension**
David Feng, David Marshburn, Dennis Jen, Richard J. Weinberg, Russell M. Taylor II, and Alain Burette

Journal Club

- 12761 **Hunting for Synaptic Tagging and Capture in Memory Formation**
José Viosca, Dragana Jancic, José P. López-Atalaya, and Eva Benito

Brief Communications

- 12839 **Can the Human Brain Predict the Consequences of Arm Movement Corrections When Transporting an Object? Hints from Grip Force Adjustments**
Frédéric Danion and Fabrice R. Sarlegna
- 13022 **Diminishing Apoptosis by Deletion of Bax or Overexpression of Bcl-2 Does Not Protect against Infectious Prion Toxicity *In Vivo***
Andrew D. Steele, Oliver D. King, Walker S. Jackson, Claudio A. Hetz, Andrew W. Borkowski, Peter Thielen, Robert Wollmann, and Susan Lindquist
- 13028 **Cortical Thickness in Congenital Amusia: When Less Is Better Than More**
Krista L. Hyde, Jason P. Lerch, Robert J. Zatorre, Timothy D. Griffiths, Alan C. Evans, and Isabelle Peretz

Articles

CELLULAR/MOLECULAR

- 12797 **Uncoupling Proton Activation of Vanilloid Receptor TRPV1**
Sujung Ryu, Beiyong Liu, Jing Yao, Qiang Fu, and Feng Qin
- 12817 **Plasticity of Neuron-Glial Interactions Mediated by Astrocytic EphARs**
Michael W. Nestor, Lee-Peng Mok, Mohan E. Tulapurkar, and Scott M. Thompson
- 12874 ***Drosophila* Huntingtin-Interacting Protein 14 Is a Presynaptic Protein Required for Photoreceptor Synaptic Transmission and Expression of the Palmitoylated Proteins Synaptosome-Associated Protein 25 and Cysteine String Protein**
R. Steven Stowers and Ehud Y. Isacoff
- 12916 **Thr³³⁹-to-Serine Substitution in Rat P2X₂ Receptor Second Transmembrane Domain Causes Constitutive Opening and Indicates a Gating Role for Lys³⁰⁸**
Lishuang Cao, Mark T. Young, Helen E. Broomhead, Samuel J. Fountain, and R. Alan North

- 12933 **Probing the Mechanism of Exocytosis at the Hair Cell Ribbon Synapse**
Andreas Neef, Darina Khimich, Primoz Pirih, Dietmar Riedel, Fred Wolf, and Tobias Moser
- 12945 **PICK1–ICA69 Heteromeric BAR Domain Complex Regulates Synaptic Targeting and Surface Expression of AMPA Receptors**
Mian Cao, Junyu Xu, Chong Shen, Chuen Kam, Richard L. Huganir, and Jun Xia
- 12957 **Alcohol Regulates Gene Expression in Neurons via Activation of Heat Shock Factor 1**
Leonardo Pignataro, Alexandria N. Miller, Limei Ma, Shonali Midha, Petr Protiva, Daniel G. Herrera, and Neil L. Harrison
- 12989 **Puma Is a Dominant Regulator of Oxidative Stress Induced Bax Activation and Neuronal Apoptosis**
Diana Steckley, Meera Karajgikar, Lianne B. Dale, Ben Fuerth, Patrick Swan, Chris Drummond-Main, Michael O. Poulter, Stephen S. G. Ferguson, Andreas Strasser, and Sean P. Cregan

DEVELOPMENT/PLASTICITY/REPAIR

- 12764 ***In Vivo* Analysis of Ascl1 Defined Progenitors Reveals Distinct Developmental Dynamics during Adult Neurogenesis and Gliogenesis**
Euseok J. Kim, Cheuk T. Leung, Randall R. Reed, and Jane E. Johnson
- 12787 **Non-Cell-Autonomous Regulation of GABAergic Neuron Development by Neurotrophins and the p75 Receptor**
Pao-Yen Lin, Jeanine M. Hinterneder, Sarah R. Rollor, and Susan J. Birren
- 12829 **Cyclin-Dependent Kinase 5 Is Required for Control of Neuroblast Migration in the Postnatal Subventricular Zone**
Yuki Hirota, Toshio Ohshima, Naoko Kaneko, Makiko Ikeda, Takuji Iwasato, Ashok B. Kulkarni, Katsuhiko Mikoshiba, Hideyuki Okano, and Kazunobu Sawamoto
- 12851 **Enhanced Transmission at a Spinal Synapse Triggered *In Vivo* by an Injury Signal Independent of Altered Synaptic Activity**
Edyta K. Bichler, Stan T. Nakanishi, Qing-Bo Wang, Martin J. Pinter, Mark M. Rich, and Timothy C. Cope
- 13000 **Modulation of Semaphorin3A Activity by p75 Neurotrophin Receptor Influences Peripheral Axon Patterning**
Ayal Ben-Zvi, Liat Ben-Gigi, Hagit Klein, and Oded Behar

BEHAVIORAL/SYSTEMS/COGNITIVE

- 12775 **Cortex Mediates Multisensory but Not Unisensory Integration in Superior Colliculus**
Juan Carlos Alvarado, Terrence R. Stanford, J. William Vaughan, and Barry E. Stein
- 12860 **Reinforcement Learning Signals in the Human Striatum Distinguish Learners from Nonlearners during Reward-Based Decision Making**
Tom Schönberg, Nathaniel D. Daw, Daphna Joel, and John P. O'Doherty
- 12868 **Fornix Transection Impairs Learning of Randomly Changing Object Discriminations**
Charles R. E. Wilson, David P. Charles, Mark J. Buckley, and David Gaffan
- 12893 **The Representation of Behavioral Choice for Motion in Human Visual Cortex**
John T. Serences and Geoffrey M. Boynton
- 12900 **Prostaglandin E₂ Acts on EP₁ Receptor and Amplifies Both Dopamine D₁ and D₂ Receptor Signaling in the Striatum**
Shiho Kitaoka, Tomoyuki Furuyashiki, Akinori Nishi, Takahide Shuto, Sho Koyasu, Toshiyuki Matsuoka, Masayuki Miyasaka, Paul Greengard, and Shuh Narumiya

- 12924 **Central Resistin Induces Hepatic Insulin Resistance via Neuropeptide Y**
Neel S. Singhal, Mitchell A. Lazar, and Rexford S. Ahima
- 12967 **Cdk5 Modulates Cocaine Reward, Motivation, and Striatal Neuron Excitability**
David R. Benavides, Jennifer J. Quinn, Ping Zhong, Ammar H. Hawasli, Ralph J. DiLeone, Janice W. Kansy, Peter Olausson, Zhen Yan, Jane R. Taylor, and James A. Bibb
- 12977 **Resonant or Not, Two Amplification Modes of Proprioceptive Inputs by Persistent Inward Currents in Spinal Motoneurons**
Marin Manuel, Claude Meunier, Maud Donnet, and Daniel Zytnicki

NEUROBIOLOGY OF DISEASE

- 12808 **Methionine Sulfoxide Reductase A and a Dietary Supplement S-Methyl-L-Cysteine Prevent Parkinson's-Like Symptoms**
Ramez Wassef, Ronny Haenold, Alfred Hansel, Nathan Brot, Stefan H. Heinemann, and Toshinori Hoshi
- 12844 **Gap Junctions Mediate Human Immunodeficiency Virus-Bystander Killing in Astrocytes**
Eliseo A. Eugenin and Joan W. Berman
- 12884 **Characterization of the Kynurenine Pathway in Human Neurons**
Gilles J. Guillemin, Karen M. Cullen, Chai K. Lim, George A. Smythe, Brett Garner, Vimal Kapoor, Osamu Takikawa, and Bruce J. Brew
- 12908 **Neuroprotective Effects of Synaptic Modulation in Huntington's Disease R6/2 Mice**
Edward C. Stack, Alpaslan Dedeoglu, Karen M. Smith, Kerry Cormier, James K. Kubilus, Mikhail Bogdanov, Wayne R. Matson, Lichuan Yang, Bruce G. Jenkins, Ruth Luthi-Carter, Neil W. Kowall, Steven M. Hersch, M. Flint Beal, and Robert J. Ferrante
- 13012 **Progressive Dendritic HCN Channelopathy during Epileptogenesis in the Rat Pilocarpine Model of Epilepsy**
Sangwook Jung, Terrance D. Jones, Joaquin N. Lugo Jr, Aaron H. Sheerin, John W. Miller, Raimondo D'Ambrosio, Anne E. Anderson, and Nicholas P. Poolos
- 13033 **Toll-Like Receptor 3 Is a Potent Negative Regulator of Axonal Growth in Mammals**
Jill S. Cameron, Lena Alexopoulou, Jacob A. Sloane, Allitia B. DiBernardo, Yinghua Ma, Bela Kosaras, Richard Flavell, Stephen M. Strittmatter, Joseph Volpe, Richard Sidman, and Timothy Vartanian

Persons interested in becoming members of the Society for Neuroscience should contact the Membership Department, Society for Neuroscience, 1121 14th St., NW, Suite 1010, Washington, DC 20005, phone 202-962-4000.

Instructions for Authors are available at <http://www.jneurosci.org/misc/itoa.shtml>. Authors should refer to these Instructions online for recent changes that are made periodically.

Brief Communications Instructions for Authors are available via Internet (http://www.jneurosci.org/misc/ifa_bc.shtml).

Submissions should be submitted online using the following url: <http://sfn.manuscriptcentral.com>. Please contact the Central Office, via phone, fax, or e-mail with any questions. Our contact information is as follows: phone, 202-962-4000; fax, 202-962-4945; e-mail, jn@sfn.org.