

JGP

The Journal of General Physiology
Vol 129 • No 1 • January 2007

General Physiology is the study of biological mechanisms through analytical investigations, which decipher the molecular and cellular mechanisms underlying biological function at all levels of organization.

The mission of the *Journal of General Physiology* is to publish articles that elucidate important biological, chemical, or physical mechanisms of broad physiological significance.

ARTICLES

- 1 Functional characterization and molecular cloning of the K^+ -dependent Na^+/Ca^{2+} exchanger in intact retinal cone photoreceptors. Christophe Paillart, Robert J. Winkfein, Paul P.M. Schnetkamp, and Juan I. Korenbrot
- 17 Open channel block by Ca^{2+} underlies the voltage dependence of *Drosophila* TRPL channel. Moshe Parnas, Ben Katz, and Baruch Minke
- 29 Depolarization-induced calcium responses in sympathetic neurons: relative contributions from Ca^{2+} entry, extrusion, ER/mitochondrial Ca^{2+} uptake and release, and Ca^{2+} buffering. Michael Patterson, James Sneyd, and David D. Friel
- 57 Pharmacological dissection and distribution of NaV 1.9, T-type Ca^{2+} currents, and mechanically activated cation currents in different populations of DRG neurons. Bertrand Coste, Marcel Crest, and Patrick Delmas
- 79 Muscle chloride channel dysfunction in two mouse models of myotonic dystrophy. John D. Lueck, Ami Mankodi, Maurice S. Swanson, Charles A. Thornton, and Robert T. Dirksen

Cover picture: Photocurrents measured in a dark-adapted single cone isolated from striped bass retina. Peak photocurrent amplitude increases with light intensity up to a saturating amplitude. Current reflects the electrogenic activity of a K^+ -dependent, Na^+/Ca^{2+} exchanger, which causes changes in intracellular free Ca^{2+} , as measured with a fluorescent dye (see article by Paillart et al., 1–16).