

CONTENTS · THE JOURNAL OF General Physiology

VOLUME 118 · NUMBER 2 · AUGUST 2001

- 135 PENG CHEN, TZYH-CHANG HWANG, and KEVIN D. GILLIS. The relationship between cAMP, Ca²⁺, and transport of CFTR to the plasma membrane
- 145 PAUL S. BLANK, STEVEN S. VOGEL, JAMES D. MALLEY, and JOSHUA ZIMMERBERG. A kinetic analysis of calcium-triggered exocytosis
- 157 FELIPE ESPINOSA, RICHARD FLEISCHHAUER, ANNE McMAHON, and ROLF H. JOHO. Dynamic interaction of S5 and S6 during voltage-controlled gating in a potassium channel
- 171 TOSHIO YAMAGISHI, RONALD A. LI, KATE HSU, EDUARDO MARBÁN, and GORDON F. TOMASELLI. Molecular architecture of the voltage-dependent Na channel: Functional evidence for α helices in the pore
- 183 HOLGER MÖTTIG, JANA KUSCH, THOMAS ZIMMER, ANNETTE SCHOLLE, and KLAUS BENNDORF. Molecular regions controlling the activity of CNG channels
- 193 EDUARDO PEROZO, ANNA KLODA, D. MARIEN CORTES, and BORIS MARTINAC. Site-directed spin-labeling analysis of reconstituted *MscL* in the closed state
- 207 SERGE CROUZY, SIMON BERNÈCHE, and BENOÎT ROUX. Extracellular blockade of K⁺ channels by TEA: Results from molecular dynamics simulations of the KcsA channel
- 219 MAURI E. KROUSE. *Commentary*: Is cystic fibrosis lung disease caused by abnormal ion composition or abnormal volume?
- 223 ROBERT TARRAN, BARBARA R. GRUBB, JOHN T. GATZY, C. WILLIAM DAVIS, and RICHARD C. BOUCHER. The relative roles of passive surface forces and active ion transport in the modulation of airway surface liquid volume and composition

Cover picture: Airway surface liquid (ASL) volume (height) is determined by the mass of NaCl on airway surfaces. Left-hand panels show XZ-scanning confocal micrographs of ASL (red) immediately after H₂O addition (top) and when the ASL has become isoosmotic with the serosal bath solution (bottom). Right-hand panels show TEMs of upright cilia/ASL after isotonic volume addition (top) and bent-over cilia after H₂O addition. See related article by Tarran, R., and B.R. Grubb, J.T. Gatz, C.W. Davis, and R.C. Boucher in this issue, pp. 223–236.