

MOLECULAR PHARMACOLOGY

September 2016

Volume 90

Number 3

molpharm.aspetjournals.org

ISSN 1521-0111

SPECIAL SECTION—A LATIN AMERICAN PERSPECTIVE ON ION CHANNELS

A Latin American Perspective on Ion Channels

Ana Belén Elgoyhen and Carlos Barajas-López

286

Understanding the Bases of Function and Modulation of $\alpha 7$ Nicotinic Receptors: Implications for Drug Discovery

Jeremías Corradi and Cecilia Bouzat

288

Structure-Driven Pharmacology of Transient Receptor Potential Channel Vanilloid 1

Ignacio Díaz-Franulic, Javier Caceres-Molina, Romina V. Sepulveda, Fernando Gonzalez-Nilo, and Ramon Latorre

300

Gating, Regulation, and Structure in K_{2P} K^+ Channels: *In Varietate Concordia?*

María Isabel Niemeyer, L. Pablo Cid, Wendy González, and Francisco V. Sepúlveda

309

Structure and Pharmacologic Modulation of Inhibitory Glycine Receptors

Carlos F. Burgos, Gonzalo E. Yévenes, and Luis G. Aguayo

318

Dynamic Regulation of the GABA_A Receptor Function by Redox Mechanisms

Daniel J. Calvo and Andrea N. Beltrán González

326

Pharmacological Conversion of a Cardiac Inward Rectifier into an Outward Rectifier Potassium Channel

Eloy G. Moreno-Galindo, Jose A. Sanchez-Chapula, Martin Tristani-Firouzi, and Ricardo A. Navarro-Polanco

334

Modulation of Ionic Channels and Insulin Secretion by Drugs and Hormones in Pancreatic Beta Cells

Myrian Velasco, Carlos Manlio Díaz-García, Carlos Larqué, and Marcia Hiriart

341

Channels and Volume Changes in the Life and Death of the Cell

Herminia Pasantes-Morales

358

Modulation of Autophagy by Calcium Signalosome in Human Disease

Eduardo Cremonese Filippi-Chiela, Michelle S. Viegas, Marcos Paulo Thomé, Andreia Buffon, Marcia R. Wink, and Guido Lenz

371

Pharmacological Modulation of Proton Channel Hv1 in Cancer Therapy: Future Perspectives.

Audry Fernández, Amaury Pupo, Karel Mena-Ulecia, and Carlos Gonzalez

385

Calcium Channels and Associated Receptors in Malignant Brain Tumor Therapy

Fernanda B. Morrone, Marina P. Gehring, and Natália F. Nicoletti

403

MINIREVIEW

Guanylyl Cyclase C Hormone Axis at the Intersection of Obesity and Colorectal Cancer

Erik S. Blomain, Dante J. Merlino, Amanda M. Pattison, Adam E. Snook, and Scott A. Waldman

199

ARTICLES


- Quantitative Single-Cell Analysis of Signaling Pathways Activated Immediately Downstream of Histamine Receptor Subtypes
Jakobus van Unen, Ali Rashidfarrokhi, Eelco Hoogendoorn, Marten Postma, Theodorus W. J. Gadella Jr., and Joachim Goedhart 162
- Characterization of a Novel M₁ Muscarinic Acetylcholine Receptor Positive Allosteric Modulator Radioligand, [³H]PT-1284
Deborah L. Smith, Jennifer E. Davoren, Jeremy R. Edgerton, John T. Lazzaro, Che-Wah Lee, Sarah Neal, Lei Zhang, and Sarah Grimwood 177
- Pharmacological Characterization of the Spectrum of Antiviral Activity and Genetic Barrier to Drug Resistance of M2-S31N Channel Blockers
Chunlong Ma, Jiantao Zhang, and Jun Wang 188
- Involvement of Spinal Angiotensin II System in Streptozotocin-Induced Diabetic Neuropathic Pain in Mice
Yoshiki Ogata, Wataru Nemoto, Osamu Nakagawasai, Ryota Yamagata, Takeshi Tadano, and Koichi Tan-No 205
- Dihydromunduletone Is a Small-Molecule Selective Adhesion G Protein–Coupled Receptor Antagonist
Hannah M. Stoveken, Laura L. Bahr, M. W. Anders, Andrew P. Wojtovich, Alan V. Smrcka, and Gregory G. Tall 214
- Hybrid Enzalutamide Derivatives with Histone Deacetylase Inhibitor Activity Decrease Heat Shock Protein 90 and Androgen Receptor Levels and Inhibit Viability in Enzalutamide-Resistant C4-2 Prostate Cancer Cells
Rayna Rosati, Bailing Chen, Mugdha Patki, Thomas McFall, Siyu Ou, Elisabeth Heath, Manohar Ratnam, and Zhihui Qin 225
- Aberrant Subcellular Dynamics of Sigma-1 Receptor Mutants Underlying Neuromuscular Diseases
Adrian Y. C. Wong, Elitza Hristova, Nina Ahlskog, Louis-Alexandre Tasse, Johnny K. Ngsee, Prakash Chudalayandi, and Richard Bergeron 238
- Lack of Influence of Substrate on Ligand Interaction with the Human Multidrug and Toxin Extruder, MATE1
Lucy J. Martínez-Guerrero, Mark Morales, Sean Ekins, and Stephen H. Wright 254
- Induction of the UDP-Glucuronosyltransferase 1A1 during the Perinatal Period Can Cause Neurodevelopmental Toxicity
Rika Hirashima, Hirofumi Michimae, Hiroaki Takemoto, Aya Sasaki, Yoshinori Kobayashi, Tomoo Itoh, Robert H. Tukey, and Ryoichi Fujiwara 265
- Synergistic Potentiation of Cystic Fibrosis Transmembrane Conductance Regulator Gating by Two Chemically Distinct Potentiators, Ivacaftor (VX-770) and 5-Nitro-2-(3-Phenylpropylamino) Benzoate
Wen-Ying Lin, Yoshiro Sohma, and Tzyh-Chang Hwang 275

NOTICE OF RETRACTION

- Re: Abkhezr M and Dryer SE (2014) Angiotensin II and Canonical Transient Receptor Potential-6 Activation Stimulate Release of a Signal Transducer and Activator of Transcription 3–Activating Factor from Mouse Podocytes *Mol Pharmacol* August 2014 86:150–158; doi:10.1124/mol.114.092536 160
- Re: Abkhezr M and Dryer SE (2015) STAT3 Regulates Steady-State Expression of Synaptopodin in Cultured Mouse Podocytes *Mol Pharmacol* February 2015 87:231–239; doi:10.1124/mol.114.094508 161

ERRATUM

Correction to “ $\alpha 7\beta 2$ Nicotinic Acetylcholine Receptors Assemble, Function, and Are Activated Primarily via Their $\alpha 7$ - $\alpha 7$ Interfaces”	410
Correction to: Biological Characterization of an Improved Pyrrole-Based Colchicine Site Agent Identified Through Structure-based Design	411
Correction to “Quantitative Single-Cell Analysis of Signaling Pathways Activated Immediately Downstream of Histamine Receptor Subtypes”	413

 Supplemental material is available online at <http://molpharm.aspetjournals.org>.

About the cover: Atomistic representation of PI(4,5)P2 binding site in TRPV1 channel. See the article by Latorre et al. ([dx.doi.org/10.1124/mol.116.104430](https://doi.org/10.1124/mol.116.104430)).