

The Journal of PHARMACOLOGY

And Experimental Therapeutics

A Publication of the American Society for Pharmacology and Experimental Therapeutics

April 2014

Vol. 349, No. 1

Contents

HIGHLIGHTED PAPERS	1
BEHAVIORAL PHARMACOLOGY	
mGluR5 Antagonist-Induced Psychoactive Properties: MTEP Drug Discrimination, a Pharmacologically Selective Non-NMDA Effect with Apparent Lack of Reinforcing Properties <i>Michael D. B. Swedberg, Maria Ellgren, and Patrick Raboison</i>	155
CARDIOVASCULAR	
Effect of Isoflurane on Myocardial Energetic and Oxidative Stress in Cardiac Muscle from Zucker Diabetic Fatty Rat <i>Xiaoxu Shen, Niraj Bhatt, Jianhong Xu, Tao Meng, Miguel A. Aon, Brian O'Rourke, Dan E. Berkowitz, Sonia Cortassa, and Wei Dong Gao</i>	21
☐ The Novel Endocannabinoid Receptor GPR18 Is Expressed in the Rostral Ventrolateral Medulla and Exerts Tonic Restraining Influence on Blood Pressure <i>Anusha Penumarti and Abdel A. Abdel-Rahman</i>	29
☐ Paradoxical Effects on Force Generation after Efficient β_1 -Adrenoceptor Knockdown in Reconstituted Heart Tissue <i>Christiane Neuber, Oliver J. Müller, Felix C. Hansen, Alexandra Eder, Anika Witten, Frank Rühle, Monika Stoll, Hugo A. Katus, Thomas Eschenhagen, and Ali El-Armouche</i>	39
CELLULAR AND MOLECULAR	
Distinct Properties of Telmisartan on Agonistic Activities for Peroxisome Proliferator-Activated Receptor γ among Clinically Used Angiotensin II Receptor Blockers: Drug-Target Interaction Analyses <i>Hirotohi Kakuta, Eiji Kurosaki, Tatsuya Niimi, Katsuhiko Gato, Yuko Kawasaki, Akira Suwa, Kazuya Honbou, Tomohiko Yamaguchi, Hiroyuki Okumura, Masanao Sanagi, Yuichi Tomura, Masaya Orita, Takako Yonemoto, and Hiroaki Masuzaki</i>	10
CHEMOTHERAPY, ANTIBIOTICS, AND GENE THERAPY	
Loss of Protein Kinase C δ /HuR Interaction Is Necessary to Doxorubicin Resistance in Breast Cancer Cell Lines <i>Elisa Latorre, Ilaria Castiglioni, Pamela Gatto, Stephana Carelli, Alessandro Quattrone, and Alessandro Provenzani</i>	99
DRUG DISCOVERY AND TRANSLATIONAL MEDICINE	
Pharmacological Evaluation of Selective α_2c -Adrenergic Agonists in Experimental Animal Models of Nasal Congestion <i>Yanlin Jia, Garfield G. Mingo, John C. Hunter, Gissela B. Lieber, Jairam R. Palamanda, Hong Mei, Christopher W. Boyce, Michael C. Koss, Yongxin Yu, Milenko Cicmil, John A. Hey, and Robbie L. McLeod</i>	75
☐ The Antiangiogenic Insulin Receptor Substrate-1 Antisense Oligonucleotide Aganirsen Impairs AU-Rich mRNA Stability by Reducing 14-3-3 β -Tristetraprolin Protein Complex, Reducing Inflammation and Psoriatic Lesion Size in Patients <i>Sylvie Colin, Bernadette Darné, Amin Kadi, Antoine Ferry, Maryline Favier, Corinne Lesaffre, Jean-Pascal Conduzorgues, Salman Al-Mahmood, and Nejib Doss</i>	107
☐ Pharmacology of JNJ-42314415, a Centrally Active Phosphodiesterase 10A (PDE10A) Inhibitor: A Comparison of PDE10A Inhibitors with D ₂ Receptor Blockers as Potential Antipsychotic Drugs <i>Anton A. H. P. Megens, Herman M. R. Hendrickx, Koen A. Hens, Ineke Fonteyn, Xavier Langlois, Ilse Lenaerts, Marijke V. F. Somers, Peter de Boer, and Greet Vanhooft</i>	138
ENDOCRINE AND DIABETES	
Pharmacological Evaluation of Adipose Dysfunction via 11 β -Hydroxysteroid Dehydrogenase Type 1 in the Development of Diabetes in Diet-Induced Obese Mice with Cortisone Pellet Implantation <i>Nobuteru Akiyama, Yuko Akiyama, Hideaki Kato, Takayuki Kuroda, Takashi Ono, Keiichi Imagawa, Kenji Asakura, Toshihiro Shinosaki, Toshihiko Murayama, and Kohji Hanasaki</i>	66

GASTROINTESTINAL, HEPATIC, PULMONARY, AND RENAL

- Soluble Guanylyl Cyclase (sGC) Degradation and Impairment of Nitric Oxide-Mediated Responses in Urethra from Obese Mice: Reversal by the sGC Activator BAY 60-2770 2
Eduardo C. Alexandre, Luiz O. Leiria, Fábio H. Silva, Camila B. Mendes-Silvério, Fabiano B. Calmasini, Ana Paula C. Davel, Fabíola Z. Mónica, Gilberto De Nucci, and Edson Antunes
- BK Channel-Mediated Relaxation of Urinary Bladder Smooth Muscle: A Novel Paradigm for Phosphodiesterase Type 4 Regulation of Bladder Function 56
Wenkuan Xin, Ning Li, Qiuping Cheng, and Georgi V. Petkov
- All-*Trans*-Retinoic Acid Improves Cholestasis in α -Naphthylisothiocyanate-Treated Rats and *Mdr2*^{-/-} Mice 94
Shi-Ying Cai, Albert Mennone, Carol J. Soroka, and James L. Boyer
- Transient Receptor Potential Vanilloid 4 Activation Constricts the Human Bronchus via the Release of Cysteinyl Leukotrienes 118
M. Allen McAlexander, Mark A. Luttmann, Gerald E. Hunsberger, and Bradley J. Undem
- Protective Effects of Acetaminophen on Ibuprofen-Induced Gastric Mucosal Damage in Rats with Associated Suppression of Matrix Metalloproteinase 165
Eriko Fukushima, Noriyuki Monoi, Shigeo Mikoshiba, Yutaka Hirayama, Tetsushi Serizawa, Kiyo Adachi, Misao Koide, Motoyasu Ohdera, Michiaki Murakoshi, and Hisanori Kato

INFLAMMATION, IMMUNOPHARMACOLOGY, AND ASTHMA

- The In Vitro Pharmacology of GS-5759, A Novel Bifunctional Phosphodiesterase 4 Inhibitor and Long Acting β_2 -Adrenoceptor Agonist 85
Stacey L. Tannheimer, Eric A. Sorensen, Zhi-Hua Cui, Musong Kim, Leena Patel, William R. Baker, Gary B. Phillips, Clifford D. Wright, and Michael Salmon

METABOLISM, TRANSPORT, AND PHARMACOGENOMICS

- ☐ Morphine Glucuronidation and Glucosidation Represent Complementary Metabolic Pathways That Are Both Catalyzed by UDP-Glucuronosyltransferase 2B7: Kinetic, Inhibition, and Molecular Modeling Studies 126
Nuy Chau, David J. Elliot, Benjamin C. Lewis, Kushari Burns, Martin R. Johnston, Peter I. Mackenzie, and John O. Miners

NEUROPHARMACOLOGY

- Novel TRPM8 Antagonist Attenuates Cold Hypersensitivity after Peripheral Nerve Injury in Rats 47
Ryan Patel, Leonor Gonçalves, Robert Newman, Feng Li Jiang, Anne Goldby, Jennifer Reeve, Alan Hendrick, Martin Teall, Duncan Hannah, Sarah Almond, Nicola Brice, and Anthony H. Dickenson

ERRATUM

- Correction to “G Protein-Coupled Bile Acid Receptor 1 Stimulation Mediates Arterial Vasodilation through a KCa1.1 (BKCa)-Dependent Mechanism” 174

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

About the cover: Selective phosphodiesterase 4 (PDE4) inhibition with rolipram increases Ca²⁺ spark frequency in freshly-isolated detrusor smooth muscle (DSM) cells. See the article by Xin et al. ([dx.doi.org/10.1124/jpet.113.210708](https://doi.org/10.1124/jpet.113.210708)).