

The Journal of PHARMACOLOGY

And Experimental Therapeutics

A Publication of the American Society for Pharmacology and Experimental Therapeutics

February 2019

Vol. 368, No. 2

Contents

MINIREVIEWS

- Anti-Claudin Antibodies as a Concept for Development of Claudin-Directed Drugs 179
Yosuke Hashimoto, Yoshiaki Okada, Keisuke Shirakura, Keisuke Tachibana, Makoto Sawada, Kiyohito Yagi, Takefumi Doi, and Masuo Kondoh

BEHAVIORAL PHARMACOLOGY

- Convulsant Effects of Abused Synthetic Cannabinoids JWH-018 and 5F-AB-PINACA Are Mediated by Agonist Actions at CB1 Receptors in Mice 146
Catheryn D. Wilson, Sherrica Tai, Laura Ewing, Jasmine Crane, Taylor Lockhart, Ryochi Fujiwara, Anna Radominska-Pandya, and William E. Fantegrossi
- Reversal and Prevention of the Respiratory-Depressant Effects of Heroin by the Novel μ -Opioid Receptor Antagonist Methocinnamox in Rhesus Monkeys 229
Lisa R. Gerak, David R. Maguire, James H. Woods, Stephen M. Husbands, Alex Disney, and Charles P. France

CARDIOVASCULAR

- Protective Effects of Duloxetine against Cerebral Ischemia-Reperfusion Injury via Transient Receptor Potential Melastatin 2 Inhibition 246
Takahiro Toda, Shinichiro Yamamoto, Noriko Umehara, Yasuo Mori, Minoru Wakamori, and Shunichi Shimizu

CELLULAR AND MOLECULAR

- Divergent Cytotoxic and Metabolically Stimulative Functions of Sigma-2 Receptors: Structure-Activity Relationships of 6-Acetyl-3-(4-(4-(4-fluorophenyl)piperazin-1-yl)butyl)benzo[d]oxazol-2(3H)-one (SN79) Derivatives 272
Hilary E. Nicholson, Walid F. Alsharif, Anthony B. Comeau, Christophe Mesangeau, Sebastiano Intagliata, Marco Mottinelli, Christopher R. McCurdy, and Wayne D. Bowen

DRUG DISCOVERY AND TRANSLATIONAL MEDICINE

- Development of Human Target Validation Classification that Predicts Future Clinical Efficacy 255
Cecilia Karlsson, Peter J. Greasley, David Gustafsson, and Karin Wähländer
- A Fentanyl Vaccine Alters Fentanyl Distribution and Protects against Fentanyl-Induced Effects in Mice and Rats 282
Michael D. Raleigh, Federico Baruffaldi, Samantha J. Peterson, Morgan Le Naour, Theresa M. Harmon, Jennifer R. Vigliaturo, Paul R. Pentel, and Marco Pravetoni

ENDOCRINE AND DIABETES

- Estrogen-Dependent Disruption of Adiponectin-Connexin43 Signaling Underlies Exacerbated Myocardial Dysfunction in Diabetic Female Rats 208
Korin E. Leffler and Abdel A. Abdel-Rahman
- α -Tocopherol Potentiates the Cervical Resistance Decreasing Effects of COX Inhibitors in Pregnant Rats: The Putative Role of Cyclooxygenase-2 Inhibition 292
Anna Kothencz, Judit Hajagos-Tóth, Kálmán F. Szűcs, Annamária Schaffer, and Róbert Gáspár

GASTROINTESTINAL, HEPATIC, PULMONARY, AND RENAL

- Diuretic, Natriuretic, and Vasodepressor Activity of a Lipid Fraction Enhanced in Medium of Cultured Mouse Medullary Interstitial Cells by a Selective Fatty Acid Amide Hydrolase Inhibitor 187
Zdravka Daneva, Sara K. Dempsey, Ashfaq Ahmad, Ningjun Li, Pin-Lan Li, and Joseph K. Ritter

- Exploring the Potential of RET Kinase Inhibition for Irritable Bowel Syndrome: A Preclinical Investigation in Rodent Models of Colonic Hypersensitivity 299
John P. Russell, Ehsan Mohammadi, Casey O. Ligon, Anthony C. Johnson, Michael D. Gershon, Meenakshi Rao, Yuhong Shen, Chi-Chung Chan, Hilary S. Eidam, Michael P. DeMartino, Mui Cheung, Allen I. Oliff, Sanjay Kumar, and Beverley Greenwood-Van Meerveld

INFLAMMATION, IMMUNOPHARMACOLOGY, AND ASTHMA

- ☐ Nicotine Modulates Growth Factors and MicroRNA to Promote Inflammatory and Fibrotic Processes 169
Afshin Ebrahimpour, Samana Shrestha, Mark D. Bonnen, N. Tony Eissa, Ganesh Raghu, and Yohannes T. Ghebre
- Dihydropyridinyl Inhibits Inflammation of Fibroblast-Like Synoviocytes through Regulation of Nuclear Factor- κ B Signaling in Rats with Collagen-Induced Arthritis 218
Jing Wu, Fu-Tao Zhao, Kai-Jian Fan, Jun Zhang, Bing-Xing Xu, Qi-Shan Wang, Ting-Ting Tang, and Ting-Yu Wang

METABOLISM, TRANSPORT, AND PHARMACOGENOMICS

- ☐ Towards Further Verification of Physiologically-Based Kidney Models: Predictability of the Effects of Urine-Flow and Urine-pH on Renal Clearance 157
Takanobu Matsuzaki, Daniel Scotcher, Adam S. Darwich, Aleksandra Galetin, and Amin Rostami-Hodjegan
- ☐ Alterations in Xenobiotic-Metabolizing Enzyme Activities across Menstrual Cycle in Healthy Volunteers 262
E. Asproдини, V. Tsiokou, E. Begas, T. Kilindris, E. Kouvaras, M. Samara, and I. Messinis
- ☐ Influence of Stereochemistry on the Bioactivation and Glucuronidation of 4-*Ipomeanol* 308
Aaron M. Teitelbaum, Matthew G. McDonald, John P. Kowalski, Oliver T. Parkinson, Michele Scian, Dale Whittington, Katharina Roellecke, Helmut Hanenberg, Constanze Wiek, and Allan E. Rettie
- ☐ Experimental Evidence for Resecretion of PGE₂ across Rat Alveolar Epithelium by OATP2A1/SLCO2A1-Mediated Transcellular Transport 317
Takeo Nakanishi, Hiroki Takashima, Yuka Uetoko, Hisakazu Komori, and Ikumi Tamai

NEUROPHARMACOLOGY

- A Comparative Study of the Pharmacokinetics of Clozapine *N*-Oxide and Clozapine *N*-Oxide Hydrochloride Salt in Rhesus Macaques 199
Daicia C. Allen, Timothy L. Carlson, Yan Xiong, Jian Jin, Kathleen A. Grant, and Verginia C. Cuzon Carlson
- Inhibitory Effects of Mas-Related Gene C Receptor on Chronic Morphine-Induced Spinal Glial Activation in Rats 237
Yunshan Zhang, Mei Wang, Qiuhua Lu, Qi Li, Mingyan Lin, Jianzhong Huang, and Yanguo Hong

☐ Supplemental material is available at jpet.aspetjournals.org.

About the cover: RET is expressed in peptidergic spinal afferent neurons located in thoracic and lumbosacral DRG of RetCFP/+ mice. See the article by Russell et al ([dx.doi.org/10.1124/jpet.118.252973](https://doi.org/10.1124/jpet.118.252973)).