The Journal of
PHARMACOLOGY
And Experimental Therapeutics
A Publication of the American Society for Pharmacology and Experimental Therapeutics

October 2023 Vol. 387, No. 1

Contents

VIEWPOINT

Partners in Pain: New Insights into The Role of CGRP Signaling in Cross-Organ Sensitization
Matthew D. Coates and Margaret A. Vizzard

Aminociceptive Effects of an Anti-CGRP Antibody in Rat Models of Colon-Bladder Cross-Organ Sensitization
Ehsan Noor-Mohammadi, Casey O. Ligon, Kimberly D. Mackenzie, Jennifer Stratton, Sara J. Shnider, and Beverley Greenwood-Van Meerveld

VIEWPOINT

Fixing a Broken Heart Opens the Door to Developing K_ATP Channel Agonists as Pain Relievers
Vanessa O. Zambelli and Eric R. Gross

K_ATP Channel Prodrugs Reduce Inflammatory and Neuropathic Hypersensitivity, Morphine-Induced Hypersensitivity, and Precipitated Withdrawal in Mice
Alexis Doucette, Kayla Johnson, Shelby Hulke, Sunna Mujteba, Elena Miller, Belle Meyer, Peter I. Dosa, and Amanda H. Klein

SPECIAL SECTION ON QUANTITATIVE SYSTEMS PHARMACOLOGY: A FOUNDATION TO ESTABLISH PRECISION MEDICINE

Quantitative Systems Pharmacology: A Foundation To Establish Precision Medicine—Editorial
Annabelle Ballesta and James M. Gallo

Optimizing IFN Alpha Therapy against Myeloproliferative Neoplasms
Guvan Hermange, Paul-Henry Cournède, and Isabelle Plo

Radiation in Combination with Immune Checkpoint Blockade and DNA Damage Response Inhibitors in Mice: Dosage Optimization in MC38 Syngeneic Tumors via Modelling and Simulation
David Hodson, Hitesh Mistry, James Yates, Paul Farrington, Anna Staniszewska, Sofia Gazzetti, Michael Davies, Leon Arons, and Kayode Ogungbenro

A Mathematical Model to Investigate the Effects of Ceralasertib and Olaparib in Targeting the Cellular DNA Damage Response Pathway
Kira Pugh, Michael Davies, and Gibin Powathil

Agent-Based Modelling Reveals the Role of the Tumor Microenvironment on the Short-Term Success of Combination Temozolomide/Immune Checkpoint Blockade to Treat Glioblastoma
Anudeep Surendran, Adrianne L. Jenner, Elham Karimi, Benoit Fiset, Daniela F. Quail, Logan A. Walsh, and Morgan Craig

Mechanistically Weighted Metric to Predict In Vivo Antibody-Receptor Occupancy: An Analytical Approach
Eshita Khera, Jaeyeon Kim, Andrew Stein, Matt Ratanapannichik, and Greg M. Thurber

Quantitative Systems Pharmacology and Machine Learning: A Match Made in Heaven or Hell?
Marcus John Tindall, Lourdes Cucurull-Sanchez, Hitesh Mistry, and James W.T. Yates

Supplemental material is available at jpet.aspetjournals.org.

About the cover: This represents cancer cells progressing through the cell cycle phases, where they can become damaged, or they can die. See the article by Pugh et al. (dx.doi.org/10.1124/jpet.122.001558).
MINIREVIEW

Role(s) of G3BPs in Human Pathogenesis
Chandrani Mukhopadhyay and Pengbo Zhou

CELLULAR AND MOLECULAR

Role of ERK1/2 Signaling in Cinnabarinic Acid-Driven Stanniocalcin 2–Mediated Protection against Alcohol-Induced Apoptosis
Nikhil Y. Patil, Iulia Rus, and Aditya D. Joshi

DRUG DISCOVERY AND TRANSLATIONAL MEDICINE

Mechanistic Model Describing the Time Course of Humoral Immunity Following Ad26.COV2.S Vaccination in Non-Human Primates
Anna Dari, Laura Solforosi, Ramon Roozendaal, Richard M.W. Hoetelmans, Juan-José Pérez-Ruixo, and Muriel Boulton