FRONT RUNNERS

FOREWORD
563 The Obese Species: a special issue on obesity and metabolic disorders
Alessandro Bartolomucci, Stefano Parmigiani, R. John Rodgers, Antonio Vidal-Puig, Sarah E. Allan and Vivian Siegel

IN THIS ISSUE
565 Summaries of this issue’s research papers

RESEARCH HIGHLIGHTS
567 Introducing fat fish for anti-obesity drug screening
The serotonergic feeding-regulatory circuit: learning from worms
SP1 in fly neurons promotes positive energy balance
Bariatric surgery for T2D in obesity

EDITORIAL
569 Fat: an evolving issue
John R. Speakman and Stephen O’Rahilly

JOURNAL CLUB
574 Fasting, feasting and the glutamatergic synapse
Piya Ghose

A MODEL FOR LIFE
576 Leading the charge in leptin research: an interview with Jeffrey Friedman
Sarah E. Allan

OBITUARY
580 Zofia Zukowska
Bruce McEwen

AT A GLANCE
583 Brain–gut–adipose-tissue communication pathways at a glance
Chun-Xia Yi and Matthias H. Tschöp
588 The adipose organ at a glance
Saverio Cinti

SPECIAL ARTICLE
595 The evolution of human adiposity and obesity: where did it all go wrong?
Jonathan C. K. Wells

COMMENTARIES
608 Role of resting metabolic rate and energy expenditure in hunger and appetite control: a new formulation
John E. Blundell, Phillipa Caudwell, Catherine Gibbons, Mark Hopkins, Erik Naslund, Neil King and Graham Finlayson
614 Obesity and psychotic disorders: uncovering common mechanisms through metabolomics
Matej Orešič
621 Anti-obesity drugs: past, present and future
R. John Rodgers, Matthias H. Tschöp and John P. H. Wilding
**RESEARCH ARTICLES**

627 High-fat-diet-induced obesity causes an inflammatory and tumor-promoting microenvironment in the rat kidney  
Kerstin Stemmer, Diego Perez-Tilve, Gayathri Ananthakrishnan, Anja Bort, Randy J. Seeley, Matthias H. Tschöp, Daniel R. Dietrich and Paul T. Pfluger

636 Accelerated renal disease is associated with the development of metabolic syndrome in a glucolipotoxic mouse model  
Cristina Martínez-García, Adriana Izquierdo, Vidya Velagapudi, Yurena Vivas, Ismael Velasco, Mark Campbell, Keith Burling, Fernando Cava, Manuel Ros, Matej Orešič, Antonio Vidal-Puig and Gema Medina-Gomez

649 Obese mice exhibit an altered behavioural and inflammatory response to lipopolysaccharide  
Catherine B. Lawrence, David Brough and Elysse M. Knight

660 Elaidyl-sulfamide, an oleylethanolamide-modelled PPARα agonist, reduces body weight gain and plasma cholesterol in rats  
Juan Manuel Decara, Miguel Romero-Cuevas, Patricia Rivera, Manuel Macias-González, Margarita Vida, Francisco J. Pavón, Antonia Serrano, Carolina Cano, Nieves Fresno, Ruth Pérez-Fernández, Fernando Rodríguez de Fonseca and Juan Suárez

671 A rodent model of rapid-onset diabetes induced by glucocorticoids and high-fat feeding  
Yaniv Shpilberg, Jacqueline L. Beaudry, Anna D’Souza, Jonathan E. Campbell, Ashley Peckett and Michael C. Riddell

**RESEARCH REPORTS**

681 Fasting hyperglycemia in the Goto-Kakizaki rat is dependent on corticosterone: a confounding variable in rodent models of type 2 diabetes  
Sara A. Beddow and Varman T. Samuel

686 High-fat-diet exposure induces IgG accumulation in hypothalamic microglia  
Chun-Xia Yi, Matthias H. Tschöp, Stephen C. Woods and Susanna M. Hofmann

691 Postnatal maternal separation modifies the response to an obesogenic diet in adulthood in rats  
Laura Paternain, Eva Martisova, Fermín I. Milagro, María J. Ramírez, J. Alfredo Martínez and Javier Campión

698 Altered inflammation, paraoxonase-1 activity and HDL physicochemical properties in obese humans with and without Prader-Willi syndrome  
Gianna Ferretti, Tiziana Bacchetti, Simona Masciangelo, Graziano Grugni and Virginia Bicchiéga