## CONTENTS

**VOLUME 233  NUMBER 3**

**COMMENTARY**

- **On gonads and gadflies: the estrus angle**
  - Stephen G Hillier  
  - Pages C1–C8

**REVIEWS**

- **Exposure to endocrine disruptors during adulthood: consequences for female fertility**
  - Saniya Ratn, Changqing Zhou, Catheryne Chiang, Sharada Mahalingam, Emily Breitm & Josh A Flaws
  - Pages R109–R129

- **Insulin receptor substrate signaling controls cardiac energy metabolism and heart failure**
  - Cathy A Guo & Shaodong Guo
  - Pages R131–R143

- **Nutritional approaches for managing obesity-associated metabolic diseases**
  - Rachel Botchlett, Shih-Lung Woo, Mengyang Liu, Ya Pei, Xin Guo, Honggui Li & Chaodong Wu
  - Pages R145–R171

**PHLPP: a putative cellular target during insulin resistance and type 2 diabetes**

- Alpana Mathur, Vivek Kumar Pandey & Poonam Kakkar
  - Pages R185–R198

**RESEARCH**

- **Hypophysectomy abolishes rhythms in rat thyroid hormones but not in the thyroid clock**
  - J Fahrenkrug, B Georg, J Hannibal & H L Jørgensen
  - Pages 209–216

- **Increased vimentin in human α- and β-cells in type 2 diabetes**
  - Maaike M Roefs, Françoise Carlotti, Katherine Jones, Hannah Wills, Alexander Hamilton, Michael Verschoor, Joanna A Williams Dunkin, Laura Garcia-Perez, Melissa F Breton, Laura McCulloch, Martin A Engelke, Paul R V Johnson, Barbara C Hansen, Kevin Docherty, Esko J P de Koning & Anna Clark
  - Pages 217–227

- **Decrease in Ins+Glut2LO β-cells with advancing age in mouse and human pancreas**
  - Christine A Beaumais, Sofia Mehta, Brenda J Strutt, Subrata Chakrabarti, Manami Hana & David J Hill
  - Pages 229–241

- **Role of osteocytes in mediating bone mineralization during hyperhomocysteinemia**
  - Vijil Vijayan & Sanka Gupta
  - Pages 243–255

**ROLE OF THE FATTY ACID-BINDING PROTEIN 4 IN HEART FAILURE AND CARDIOVASCULAR DISEASE**

- Ricardo Rodriguez-Calva, Josefina Girona, Josep M Alagret, Albà Bosquet, Dalíana Ibarretxe & Lluís Masana
  - Pages R173–R184

**ROLE OF OSTEOCYTES IN MEDIATING BONE MINERALIZATION DURING HYPERHOMOCYSTEINEMIA**

- Viji Vijayan & Sanka Gupta
  - Pages R185–R198

**ACTION OF PHLPP DURING INSULIN RESISTANCE AND TYPE 2 DIABETES**

- Alpana Mathur, Vivek Kumar Pandey & Poonam Kakkar
  - Pages R185–R198

**HYPOTHALAMUS-ADRENAL CORTEX AXIS:**

- Stephen G Hillier
  - Pages C1–C8

**ACTION OF PHLPP DURING INSULIN RESISTANCE AND TYPE 2 DIABETES**

- Alpana Mathur, Vivek Kumar Pandey & Poonam Kakkar
  - Pages R185–R198

**RESEARCH CONTENTS CONTINUED ON THE INSIDE BACK COVER**
Desmin is stained green, cell nuclei are stained blue. This study demonstrates that adipocyte-derived factors can impair renal function, and that adipocyte-derived factors play an important role in obesity-related podocytopathy. From Chen S-W Huang & C-C Juan (National Yang-Ming University, Taipei, Taiwan)