CONTENTS

SPECIAL ARTICLE: George E. Brown Memorial Lecture
Role of Atrial Peptides in Body Fluid Homeostasis.
   Barbara J. Ballermann and Barry M. Brenner ............................................. 619

Cardiovascular Effects Associated with Antidiuretic Activity of Vasopressin after Blockade of Its Vasoconstrictor Action in Dehydrated Dogs.
   Jean-Francois Liard .................................................................................... 631

Trophic Interactions between Rat Nerves and Blood Vessels in Denervated Peripheral Arteries and in Anterior Eye Chamber Transplants.
   Mary E. Todd .................................................................................................. 641

The Influence of Pressure Overload Left Ventricular Hypertrophy on Diastolic Properties during Hypoxia in Isovolumically Contracting Rat Hearts.
   Beverly H. Lorell, Laura F. Wexler, Shin-ichi Momomura, Ellen Weinberg, and Carl S. Apstein ................. 653

Left Ventricular Mechanics Related to the Local Distribution of Oxygen Demand Throughout the Wall.
   Rafael Beyar and Samuel Sideman .................................................................. 664

Regional Comparison of Midwall Segment and Area Shortening in the Canine Left Ventricle.
   Wilbur Y.W. Lew and Martin M. LeWinter .................................................... 678

Load Regulation of the Properties of Adult Feline Cardiocytes: The Role of Substrate Adhesion.
   George Cooper, IV, W. Edward Mercer, J. Kenneth Hoober, Pamela R. Gordon, Robert L. Kent, Ines K. Lauwa, and Thomas A. Marino .................................................. 692

   Donald C. Michaels, Edward P. Matyas, and Jose Jalife .................................. 706

BRIEF COMMUNICATIONS

   R. John Solaro, Pankaj Kumar, Edward M. Blanchard, and Anne F. Martin ................................................. 721

Ryanodine Inhibits the Release of Calcium from Intracellular Stores in Guinea Pig Aortic Smooth Muscle.
   Katsuaki Ito, Sachiko Takakura, Kohichi Sato, and John L. Sutko ........................ 730

NEWS FROM THE AMERICAN HEART ASSOCIATION ........................................... 735
CONTENTS

Original Articles

- Freeman, S. E., Dawson, R. M. and Keeghan, A. M., Modification of the Effects of Muscarinic Agonists by Reversible and Irreversible Anticholinesterase Compounds in the Guinea Pig Atrium 231
- Tunstall, J., Busselen, P., Rodrigo, G. C. and Chapman, R. A., Pathways for the Movements of Ions During Calcium-free Perfusion and the Induction of the ‘Calcium Paradox’ 241
- Watts, J. A., Maiorano, L. J. and Maiorano, P. C., Comparison of the Protective Effects of Verapamil, Diltiazem, Nifedipine, and Buffer Containing Low Calcium upon Global Myocardial Ischemic Injury 255
- Gibbs, C. L., Kotsanis, G. and Gibson, W. B., Daunomycin-induced Cardiomyopathy in Rabbits: Isolated Heart and Papillary Muscle Energetics 273
- Rakusan, K. and Tomanek, R. J., Distribution of Mitochondria in Normal and Hypertrophic Myocytes from the Rat Heart 299
- Whitemer, J. T., Energy Metabolism and Mechanical Function in Perfused Hearts of Syrian Hamsters with Dilated or Hypertrophic Cardiomyopathy 307
- Humphrey, S. M. and Vanderwee, M. A., Factors Affecting the Development of Contraction Band Necrosis During Reperfusion of the Isolated Isovolumic Rat Heart 319

Rapid Communication

- Turner, B. B. and Moses, L. F., Sex Differences in the Distribution and Regulation of Glucocorticoid Receptors in Cardiac Tissues of Rats 331

Book Reviews

335

ISHR Calendar

337