CONTENTS

ORIGINAL CONTRIBUTIONS

Global Myocardial Ischemia in the Newborn, Juvenile, and Adult Isolated Isovolumic Rabbit Heart
Mark D. Parrish, Aena Payne, and David E. Fixler .................................................. 609

Quantification of Intestinal Microvascular Growth During Maturation: Techniques and Observations
Joseph L. Unthank and H. Glenn Bohlen ............................................................... 616

Stimulation of Phosphatidylinositol Metabolism in the Isolated, Perfused Rat Heart
Elizabeth A. Woodcock, L. Barbara Schmauk White, A. Ian Smith, and Jennifer K. McLeod ..... 625

Bradykinin-Induced Increases in Cytosolic Calcium and Ionic Currents in Cultured Bovine Aortic Endothelial Cells
Margaret Colden-Stanfield, William P. Schilling, Aileen K. Ritchie, Suzanne G. Eskin,
Lydia T. Navarro, and Diana L. Kunze ........................................................................ 632

Failure of Swimming Exercise to Improve Capillarization in Cardiac Hypertrophy of Renal Hypertensive Rats
Karel Rakusan, Pierre Wicker, Marvan Abdul-Samad, Bernadine Healy, and Zdenek Turek .... 641

Contrasting Effects of Static and Pulsatile Pressure on Carotid Baroreceptor Activity in Dogs
Mark W. Chapleau and Francois M. Abboud ................................................................ 648

Group B Streptococcal Sepsis in the Piglet: Effects of Fluid Therapy on Venous Return, Organ Edema,
and Organ Blood Flow
Michael A. Bressack, Neil S. Morton, and John Hortop ............................................. 659

Stimulus-Response Curve of the Renal Baroreceptor: Effect of Converting Enzyme Inhibition and Changes in Salt Intake
Eli R. Farhi, James R. Cant, William C. Paganelli, Victor J. Dzau, and A. Clifford Barger .... 670

Enhanced Responsiveness to Carotid Baroreceptor Unloading in Conscious Dogs During Development of Perinephritic Hypertension
Debra A. Kirby and Stephen F. Vatner ...................................................................... 678

Vibrational Analysis of Bioprosthetic Heart Valve Leaflets Using Numerical Models: Effects of Leaflet Stiffening, Calciumification, and Perforation
Mohamed S. Hamid, Hani N. Sabbah, and Paul D. Stein .............................................. 687

Transverse Stiffness: A Method for Estimation of Myocardial Wall Stress
Henry R. Halperin, Paul H. Chew, Myron L. Weisfeldt, Kiichiro Sagawa, Jay D. Humphrey,
and Frank C.P. Yin ..................................................................................................... 695

Mechanisms of Sinoatrial Pacemaker Synchronization: A New Hypothesis
Donald C. Michaels, Edward P. Matyas, and Jose Jalife ............................................... 704

Immunologic Identification of Lymphocyte Subsets in Experimental Murine Myocarditis With Erysipelothromyocarditis Virus
Chikaru Kishimoto, Kagemasa Kuribayashi, Kanzo Fukuma, Tohru Masuda, Nobuyoshi Tomioka,
Walter H. Abelmann, and Chuichi Kawai ................................................................. 715

Role of Changes in [Ca2+]i in Energy Deprivation Contracture
William H. Barry, George A. Peeters, Carl A.F. Rasmussen, Jr., and Michael J. Cunningham .... 726

Long-Chain Acylcarnitines Mediate the Hypoxia-Induced Increase in α1-Adrenergic Receptors on Adult Canine Myocytes
Guy P. Heathers, Kathryn A. Yamada, Evelyn M. Kanter, and Peter B. Corr .................... 735

Effect of Changes in Ventricular Relaxation on Early Diastolic Coronary Blood Flow in Canine Hearts
Leslie J. Domaok-Wawrzynski, Wm. John Powell Jr., Luis Guerrero, and Igor Palacios ...... 747

BRIEF COMMUNICATION

Direct Detection of Free Radicals in the Reperfused Rat Heart Using Electron Spin Resonance Spectroscopy
Pamela B. Garlick, Michael J. Davies, David J. Hearse, and Trevor F. Slater .................. 757

NEWS FROM THE AMERICAN HEART ASSOCIATION ...................................................... 761A