

JOURNAL OF
PHYSIOLOGY
AND
PHARMACOLOGY

formerly *Acta Physiologica Polonica*

Vol. 48, No 4

DECEMBER 1997

An Official Journal of the Polish Physiological Society

JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY

formerly *Acta Physiologica Polonica*

An Official Journal of the Polish Physiological Society

Vol. 48, No 4

December 1997

CONTENTS

Preface	491
REVIEW ARTICLES	
<i>J. R. Parratt</i> : Nitric oxide. A key mediator in sepsis and endotoxaemia?	493
<i>B. A. Escalante, J. C. McGiff, N. R. Ferreri</i> : The renal medullary thick ascending limb as a model for understanding lipid mediators in sepsis	507
<i>G. P. Novelli</i> : Role of free radicals in septic shock	517
<i>R. Müller-Peddinghaus</i> : Potential anti-inflammatory effects of 5-lipoxygenase inhibition — exemplified by the leukotriene synthesis inhibitor BAY X 1005	529
<i>S. J. Verbrugge, V. Sorm, B. Lachmann</i> : Mechanisms of acute respiratory distress syndrome: role of surfactant changes and mechanical ventilation	537
<i>J. H. Siegel</i> : Physiologic, metabolic and mediator responses in posttrauma ards and sepsis: is oxygen debt a critical initiating factor?	559
ORIGINAL ARTICLES	
<i>M. R. Pinsky</i> : Clinical applications of cardiopulmonary interactions	587
<i>H. Ruetten, C. Thiemermann</i> : Combination immunotherapy which neutralises the effects of TNF α and IL-1 β attenuates the circulatory failure and multiple organ dysfunction caused by endotoxin in the rat	605
<i>P. Patrignani, M. R. Panara, M. G. Sciulli, G. Santini, G. Renda, C. Patrono</i> : Differential inhibition of human prostaglandin endoperoxide synthase-1 and -2 by nonsteroidal anti-inflammatory drugs	623
<i>V. Brovkovych, S. Patton, S. Brovkovych, F. Kiechle, I. Huk, T. Malinski</i> : In situ measurement of nitric oxide, superoxide and peroxynitrite during endotoxemia	633
<i>P. P. Wolkow, J. B. Bartuś, R. J. Gryglewski</i> : Pneumotoxicity of lipopolysaccharide in nitric oxide-deficient rats is limited by a thromboxane synthase inhibitor	645
<i>J. B. Bartuś, S. Chłopicki, R. J. Gryglewski</i> : Increased pneumotoxicity of lipopolysaccharide from <i>E. coli</i> in nitric oxide deficient blood-perfused rat lungs	655
<i>A. Sala, C. Buccellati, S. Zarini, M. Bolla, A. Bonazzi, G. C. Folco</i> : The polymorphonuclear leukocyte: a cell tuned for transcellular biosynthesis of cys-leukotrienes	665
<i>H. Ruetten, C. Thiemermann</i> : Endothelin-1 stimulates the biosynthesis of tumour necrosis factor in macrophages: ET-receptors, signal transduction and inhibition by dexamethasone	675

<i>J. Dulak, M. Polus, I. Guevara, A. Polus, J. Hartwich, A. Dembińska-Kieć:</i> Regulation of inducible nitric oxide synthase (iNOS) and GTP cyclohydrolase I (GTP-CH I) gene expression by OX-LDL in rat vascular smooth muscle cells	689
<i>T. Brzozowski, P. Ch. Konturek, Z. Śliwowski, D. Drozdowicz, R. Pajdo, J. Stachura, E. G. Hahn, S. J. Konturek:</i> Lipopolysaccharide of <i>Helicobacter pylori</i> protects gastric mucosa via generation of nitric oxide	699
<i>K. Peuhkuri, M. Hukkanen, R. Beale, J. M. Polak, H. Vapaatalo, R. Korpela:</i> Age and continuous lactose challenge modify lactase protein expression and enzyme activity in gut epithelium in the rat	719
<i>D. Starzyk, R. Korbut, R. J. Gryglewski:</i> The role of nitric oxide in regulation of deformability of red blood cells in acute phase endotoxaemia in rats	731
<i>M. Maćzewski, A. Beręsewicz:</i> Inhibitors of nitric oxide synthesis and ischemia/reperfusion attenuate coronary vasodilator response to pinacidil in isolated rat heart	737
<i>W. W. Pawlik, R. Sendur, R. Koziol, J. Biernat:</i> Nitric oxide as mediator of bradykinin-induced pancreatic circulatory and metabolic responses	751
<i>H. Fujita, S. Takahashi, S. Okabe:</i> Characterization of antichemotactic factor extracted from the gastric mucosa of rats	761
<i>Z. Warzecha, A. Dembiński, P. Ceranowicz, P. Ch. Konturek, J. Stachura, S. J. Konturek, J. Niemiec:</i> Protective effect of calcitonin gene-related peptide against caerulein-induced pancreatitis in rats	775
<i>G. Jurkowska, G. Rydzewska, A. Andrzejewska:</i> The influence of polyamines synthesis inhibition on pancreas regeneration and phospholipase D activity after acute caerulein-induced pancreatitis in rats. Biochemical and ultrastructural study	789
<i>J. Bugajski, A. Gądek-Michalska, A. Olowska, J. Borycz, R. Głód:</i> Role of nitric oxide in the vasopressin-induced corticosterone secretion in rats	805
<i>J. Ciosek, B. Stempniak:</i> The influence of vasopressin or oxytocin on thyroid-stimulating hormone and thyroid hormones' concentration in blood plasma of euthyroid rats	813
<i>T. Źebrowska, E. Siadkowska, L. Zwierzchowski, A. Gajewska, K. Kochman:</i> <i>In vivo</i> effect of growth hormone on DNA synthesis and expression of milk protein genes in the rabbit mammary gland	825
<i>T. Rychlewski, L. Szczęśniak, P. Dylewicz, E. Deskur, I. Przywarska, Z. Kasprzak, J. Karolkiewicz, L. Konys:</i> The influence of oral glucose intake on binding and degradation of ^{125}I -insulin by receptors on erythrocytes as well as on insulin and C-peptide serum levels in patients after myocardial infarction and healthy individuals	839
<i>M. Wenz, J. Z. Berend, N. A Lynch, S. Chappell, A. C. Hackney:</i> Substrate oxidation at rest and during exercise: effects of menstrual cycle phase and diet composition	851
<i>I. Kmickiewicz, B. Bilińska:</i> The capability of androgen aromatization by bank vole Leyding cells <i>in vitro</i> : the effect of aromatase inhibitor	861
<i>J. Przybylski, B. Skotnicka-Fedorowicz, A. Lisiecka, M. Siński, P. Abramczyk:</i> The increased concentration of 2,3-diphosphoglycerate in red blood cells of spontaneously hypertensive rats	873