

CONTENTS

Volume 94, part I

January 1998

Guidance for Authors 1998

i-x

COMMENTS

- Plasma oxygen during cardiopulmonary bypass *by* M. J. JACKSON
(see accompanying paper pp. 35-41) 1
- Nitric oxide puzzles and paradoxes in heart failure: how to fit the pieces together?
by D. J. STEWART
(see accompanying paper pp. 43-48) 3-4
- Blood pressure in autonomic failure: drinks, meals and other ordeals *by* J. R. SHANNON,
J. JORDAN and D. ROBERTSON
(see accompanying paper pp. 49-55) 5

EDITORIAL REVIEW

- Just how big is the pulmonary granulocyte pool? *by* A. M. PETERS 7-19

PAPERS

- Increased plasma levels of adrenomedullin in patients with hypertrophic cardiomyopathy: its relation to endothelin-1, natriuretic peptides and noradrenaline *by* M. HAMADA, Y. SHIGEMATSU, H. KAWAKAMI, N. MINAMINO, K. KANGAWA, H. MATSUO and K. HIWADA 21-28
- Determinative role of peroxidized low-density lipoprotein in myocardial thromboxane synthesis during pacing-induced ischaemia in humans *by* H.-C. HSU, M.-F. CHEN, C.-M. LEE and Y.-T. LEE 29-34
- Plasma oxygen during cardiopulmonary bypass: a comparison of blood oxygen levels with oxygen present in plasma lipid *by* I. M. PETYAIEV, A. VUYLSTEKE, D. W. BETHUNE and J. V. HUNT 35-41
- Increased L-arginine transport in human erythrocytes in chronic heart failure *by* H. HANSEN, T. M. C. BRUNINI, M. CONWAY, A. P. BANNING, N. B. ROBERTS, G. E. MANN, J. C. ELLORY and A. C. MENDES RIBEIRO 43-48
- Hypotensive and regional haemodynamic effects of exercise, fasted and after food, in human sympathetic denervation *by* S. PUVI-RAJASINGHAM, G. D. P. SMITH, A. AKINOLA and C. J. MATHIAS 49-55
- Long- and short-term blood pressure and RR-interval variability and psychosomatic distress in chronic fatigue syndrome *by* D. A. DUPREZ, M. L. DE BUYZERE, B. DRIEGHE, F. VANHAVERBEKE, Y. TAES, W. MICHIENSEN and D. L. CLEMENT 57-63
- Rate of gastric emptying is a determinant of postprandial hypotension in non-insulin-dependent diabetes mellitus *by* K. L. JONES, A. TONKIN, M. HOROWITZ, J. M. WISHART, B. I. CARNEY, S. GUHA and L. GREEN 65-70
- Lipolysis and lactate production in human skeletal muscle and adipose tissue following glucose ingestion *by* D. A. J. M. KERCKHOFFS, P. ARNER and J. BOLINDER 71-77
- Membrane microviscosity and plasma triacylglycerols in the rat *by* M.-A. DEVYNCK, J. KUNEŠ, K. H. LE QUAN SANG and J. ZICHA 79-85
- Changes to mucins in uninvolved mucosa and at the tumour site in gastric adenocarcinoma of intestinal type *by* R. L. SIDEBOTHAM, N. K. DHIR, J. B. ELDER, J. SPENCER, M. M. WALKER and J. SCHRAGER 87-99

CORRESPONDENCE

- The problem of factitious hyperkalaemia *by* R. LORD 101

GLAXO/MRS YOUNG INVESTIGATOR PRIZE

- Matrix metalloproteinases: implication in vascular matrix remodelling during atherogenesis *by* S. YE, S. HUMPHRIES and A. HENNEY 103–110

PAPERS

- Peripheral vascular response to mild indirect cooling in patients with homozygous sickle cell (SS) disease and the frequency of painful crisis *by* J. MOHAN, J. M. MARSHALL, H. L. REID, P. W. THOMAS, I. HAMBLETON and G. R. SERJEANT 111–120
- Influences on adrenaline-induced thermogenesis in obese women and relationship to cardiovascular responses *by* K. M. WALSH, C. ADAMS, A. SINCLAIR, E. LEEN and M. E. J. LEAN 121–127
- Lack of effect of vitamin E on L-arginine-responsive endothelial dysfunction in patients with mild hypercholesterolaemia and coronary artery disease *by* P. J. CHOWIENCZYK, B. J. KNEALE, S. E. BRETT, G. PAGANGA, B. S. JENKINS and J. M. RITTER 129–134
- Plasma levels of adrenomedullin in patients with acute myocardial infarction *by* Y. YOSHITOMI, T. NISHIKIMI, S. KOJIMA, M. KURAMOCHI, S. TAKISHITA, H. MATSUOKA, A. MIYATA, H. MATSUO and K. KANGAWA 135–139
- Pharmacological characterization of coronary small arteries from pigs with chronic ischaemic myocardial remodelling *by* N. H. BUUS, K. TERP, U. BAANDRUP, M. J. MULVANY and N. C. B. NYBORG 141–147
- An early prenatal exposure to excess glucocorticoid leads to hypertensive offspring in sheep *by* M. DODIC, C. N. MAY, E. M. WINTOUR and J. P. COGHLAN 149–155
- Intravenous lactate prevents cerebral dysfunction during hypoglycaemia in insulin-dependent diabetes mellitus *by* P. KING, M.-F. KONG, H. PARKIN, I. A. MACDONALD, C. BARBER and R. B. TATTERSALL 157–163
- Angiotensin-converting enzyme inhibition does not correct early defects in renal and vascular permeability in diabetes mellitus *by* R. ZIETSE, F. H. DERKX, W. WEIMAR and M. A. SCHALEKAMP 165–173
- Systemic nitric oxide synthase inhibition increases insulin sensitivity in man *by* R. BUTLER, A. D. MORRIS and A. D. STRUTHERS 175–180
- Pancreatic bile-salt-dependent lipase activity in serum of diabetic patients: is there a relationship with glycation? *by* N. CAILLOL, E. PASQUALINI, E. MAS, R. GUIEU, A. VALETTE, J. BOYER and D. LOMBARDO 181–188
- Carotenoids, retinol and tocopherols in patients with insulin-dependent diabetes mellitus and their immediate relatives *by* F. GRANADO, B. OLMEDELLIA, E. GIL-MARTINEZ, I. BLANCO, I. MILLAN and E. ROJAS-HIDALGO 189–195
- Does total antioxidant status relate to outcome in very preterm infants? *by* J. A. DRURY, J. A. NYCYK, M. BAINES and R. W. I. COOKE 197–201
- Relationship between serum alkaline phosphatase and pyridoxal-5'-phosphate levels in hypophosphatasia *by* S. J. IQBAL, A. BRAIN, T. M. REYNOLDS, M. PENNY and S. HOLLAND 203–206
- SUPPLEMENT 38**
- Communications for the Autumn Meeting of the Medical Research Society on 13 and 14 November 1997 in conjunction with the Science and Medicine Conference at the Royal College of Physicians, London 1P–21P

GLAXO/MRS YOUNG INVESTIGATOR MEDAL

- Molecular studies on adenosine deaminase deficiency and hereditary haemorrhagic telangiectasia *by* C. L. SHOVLIN 207–218

RAPID COMMUNICATION

- Epidermal growth factor protects against carbon tetrachloride-induced hepatic injury *by* J. BERLANGA, M. E. CABALLERO, D. RAMIREZ, A. TORRES, C. VALENZUELA, J. LODOS and R. J. PLAYFORD 219–223

PAPERS

- Nitric oxide modulation of coronary artery myogenic tone in spontaneously hypertensive and Wistar–Kyoto rats *by* S. R. GARCIA and S. J. BUND 225–229
- Influence of mode of contraction on the mechanism of acetylcholine-mediated relaxation of coronary arteries from normotensive and spontaneously hypertensive rats *by* S. J. BUND 231–238
- Non-invasive investigation of endothelium-dependent dilatation of the brachial artery in women with primary Raynaud's phenomenon *by* Å. RINGQVIST, T. JONASON, J. LEPPERT and I. RINGQVIST 239–243
- Applicability of new techniques in the assessment of arterial baroreflex sensitivity in the elderly: a comparison with established pharmacological methods *by* M. A. JAMES, R. B. PANERAI and J. F. POTTER 245–253
- Skin microcirculation in patients with Type I diabetes with and without neuropathy after neurovascular stimulation *by* T. FORST, A. PFÜTZNER, T. KUNT, T. POHLMANN, U. SCHENK, R. BAUERSACHS, E. KÜSTNER and J. BEYER 255–261
- Autoimmune and clinical characteristics of Type I diabetes in children with different genetic risk loads defined by HLA-DQB1 alleles *by* J. KOMULAINEN, M. KNIP, E. SABBAH, P. VÄHÄSALO, R. LOUNAMAA, H. K. ÅKERBLOM, H. REIJONEN, J. ILONEN and the CHILDHOOD DIABETES IN FINLAND STUDY GROUP 263–269
- Function of rat skeletal muscles after storage at 10 °C in various preservation solutions *by* E. P. A. VAN DER HEIJDEN, A. B. A. KROESE, P. M. N. WERKER, P. D. GRABIETZ, M. B. DE JONG, P. R. BÄR and M. KON 271–278
- Metabolic and myoelectrical effects of acute hypoxaemia during isometric contraction of forearm muscles in humans: a combined ³¹P-magnetic resonance spectroscopy–surface electromyogram (MRS–SEMG) study *by* D. BENDAHAN, M. BADIÉ, Y. JAMMES, S. CONFORT-GOUNY, A. M. SALVAN, C. GUILLOT and P. J. COZZONE 279–286
- Mild metabolic alkalosis impairs the natriuretic response to bumetanide in normal human subjects *by* N. R. LOON and C. S. WILCOX 287–292
- Changes in both the membrane and the enzyme content of individual zymogen granules are associated with sodium taurocholate-induced pancreatitis in rats *by* M. A. MANSO, A. ORFAO, M. D. TABERNEIRO, S. VICENTE and I. DE DIOS 293–301
- Dietary fish oil suppresses human colon tumour growth in athymic mice *by* P. C. CALDER, J. DAVIS, P. YAQOUB, H. PALA, F. THIES and E. A. NEWSHOLME 303–311
- Distribution of glutaminase and glutamine synthetase activities in the human gastrointestinal tract *by* L. A. JAMES, P. G. LUNN, S. MIDDLETON and M. ELIA 313–319
- Whole body protein metabolism in human pulmonary tuberculosis and undernutrition: evidence for anabolic block in tuberculosis *by* D. C. MACALLAN, M. A. MCNURLAN, A. V. KURPAD, G. DE SOUZA, P. S. SHETTY, A. G. CALDER and G. E. GRIFFIN 321–331

CORRECTIONS

- Catchlines in papers in January 1998 issue (94: 1)

COMMENTS

- Syncope and sudden death in hypertrophic cardiomyopathy *by* R. S. SHELDON
(see accompanying paper pp. 339–346) 335–336
- Preventing adult disease: windows of opportunity *by* S. B. HARRAP
(see accompanying paper pp. 373–381) 337–338

PAPERS

- Reflex responses of venous capacitance vessels in patients with hypertrophic cardiomyopathy
by H. L. THOMSON, J. MORRIS-THURGOOD, J. ATHERTON, W. J. MCKENNA and
M. P. FRENNEAUX 339–346
- Dynamics of circulatory adjustments to head-up tilt and tilt-back in healthy and
sympathetically denervated subjects *by* W. WIELING, J. J. VAN LIESHOUT
and A. D. J. TEN HARKEL 347–352
- Cerebral blood flow velocity during and after sustained isometric skeletal muscle contractions
in man *by* F. J. IMMS, F. RUSSO, V. I. IYAWA and M. B. SEGAL 353–358
- Differential regulation of ventricular adrenomedullin and atrial natriuretic peptide gene
expression in pressure and volume overload in the rat *by* M. KAISER, O. KAHR, Y. SHIMADA,
P. SMITH, M. KELLY, N. MAHADEVA, M. ADAMS, D. LODWICK, C. AALKJAER, M. AVKIRAN
and N. J. SAMANI 359–365
- Chronic administration of octreotide ameliorates portal hypertension and portal hypertensive
gastropathy in rats with cirrhosis *by* C.-C. CHAN, F.-Y. LEE, S.-S. WANG, F.-Y. CHANG,
H.-C. LIN, H.-J. LIN, C.-J. CHU, S.-L. WU, C.-C. TAI and S.-D. LEE 367–371
- Early administration of angiotensin-converting enzyme inhibitor captopril, prevents the
development of hypertension programmed by intrauterine exposure to a maternal low-
protein diet in the rat *by* R. C. SHERMAN and S. C. LANGLEY-EVANS 373–381
- Human muscle sympathetic activity and cardiac catecholamine spillover: no support for
augmented sympathetic noradrenaline release by adrenaline co-transmission *by*
J. M. THOMPSON, B. G. WALLIN, G. W. LAMBERT, G. L. JENNINGS and M. D. ESSLER 383–393
- Vascular endothelial growth factor (VEGF) is released from platelets during blood clotting:
implications for measurement of circulating VEGF levels in clinical disease *by*
N. J. A. WEBB, M. J. BOTTOMLEY, C. J. WATSON and P. E. C. BRENCHLEY 395–404
- Bone mineral changes during pregnancy and lactation: a longitudinal cohort study *by*
N. KOLTHOFF, P. EIKEN, B. KRISTENSEN and S. P. NIELSEN 405–412
- Sustained modifications of protein metabolism in various tissues in a rat model of long-lasting
sepsis *by* D. BREUILLÉ, M. ARNAL, F. RAMBOURDIN, G. BAYLE, D. LEVIEUX and C. OBLÉD 413–423
- Proximal renal tubular peptide catabolism, ammonia excretion and tubular injury in patients
with proteinuria: before and after lisinopril *by* R. RUSTOM, J. S. GRIME, M. COSTIGAN,
P. MALTBY, A. HUGHES, A. SHENKIN, M. CRITCHLEY and J. M. BONE 425–430
- Inappropriately high plasma leptin levels in obese haemodialysis patients can be reduced by
high flux haemodialysis and haemodiafiltration *by* M. WIESHOLZER, F. HARM, A.-C. HAUSER,
A. PRIBASNIG and P. BALCKE 431–435
- Neutrophil cathepsin G modulates platelet P-selectin expression and inhibits P-selectin-
mediated platelet–neutrophil adhesion *by* M. K. ILTON, M. L. TAYLOR, N. L. A. MISSO,
P. J. THOMPSON and J. HUNG 437–445
- Effect of oxidative stress on lymphocytes from elderly subjects *by* E. GARCÍA-ARUMÍ,
A. L. ANDREU, J. LÓPEZ-HELLÍN and S. SCHWARTZ 447–452
- Time course and pattern of pulmonary flow distribution following unilateral airway occlusion
in sheep *by* B. JOHANSEN, M. N. MELSOM, T. FLATEBØ and G. NICOLAYSEN 453–460

Volume 94, part 5**May 1998****EDITORIAL REVIEW**

- Neutrophil priming: pathophysiological consequences and underlying mechanisms *by* A. M. CONDLIFFE, E. KITCHEN and E. R. CHILVERS 461–471

GLAXO/MRS YOUNG INVESTIGATOR PRIZE

- Genetics of inflammatory bowel disease *by* J. SATSANGI, M. PARKES, D. P. JEWELL and J. I. BELL 473–478

PAPERS

- Plasma leptin in chronic inflammatory bowel disease and HIV: implications for the pathogenesis of anorexia and weight loss *by* A. BALLINGER, P. KELLY, E. HALLYBURTON, R. BESSER and M. FARTHING 479–483
- Abnormal transoesophageal Doppler coronary flow reserve in patients with dilated cardiomyopathy: relationship to exercise capacity *by* Z. CHATI, J. F. BRUNTZ, G. ETHÉVENOT, E. ALIOT and F. ZANNAD 485–492
- Haemodynamic responses in young and elderly, healthy subjects during ambient and warm head-up tilt *by* M. LYE and T. WALLEY 493–498
- Regulation of mitochondrial ATP synthase activity in human myocardium *by* A. M. DAS 499–504
- Aprotinin reduces nitric oxide production *in vitro* and *in vivo* in a dose-dependent manner *by* N. L. BRUDA, B. J. HURLBERT and G. E. HILL 505–509
- Renoprotective differences between perindopril and enalapril in the diabetic hypertensive rat do not reflect glomerular angiotensin-converting enzyme activity *by* K. A. DUGGAN, G. HODGE, M. M. MAKARIOUS and J. A. CHARLESWORTH 511–516
- Vasopressin V1a and V2 receptor mRNA in deoxycorticosterone acetate-salt hypertension in the rat *by* J. RISVANIS, C. I. JOHNSTON, P. A. PHILLIPS and L. M. BURRELL 517–523
- Effects of skin cooling on airway reactivity in asthma *by* M. E. SKOWRONSKI, R. CIUFO, J. A. NELSON and E. R. MCFADDEN 525–529
- CYFRA 21-1, a cytokeratin subunit 19 fragment, in bronchoalveolar lavage fluid from patients with interstitial lung disease *by* H. KANAZAWA, T. YOSHIKAWA, M. YAMADA, S. SHOJI, T. FUJII, S. KUDOH, K. HIRATA and J. YOSHIKAWA 531–535
- A circadian variation exists for soluble levels of intercellular adhesion molecule-1 and E-selectin in healthy volunteers *by* C. MAPLE, G. KIRK, M. MCLAREN, D. VEALE and J. J. F. BELCH 537–540
- Fibroblasts from post-burn hypertrophic scar tissue synthesize less decorin than normal dermal fibroblasts *by* P. G. SCOTT, C. M. DODD, A. GHAHARY, Y. J. SHEN and E. E. TREDGET 541–547
- Skeletal progenitor cells and ageing human populations *by* R. O. C. OREFFO, S. BORD and J. T. TRIFFITT 549–555

Volume 94, part 6**June 1998****EDITORIAL REVIEW**

- Anti-inflammatory actions of glucocorticoids: molecular mechanisms *by* P. J. BARNES 557–572

PAPERS

- Effects of β -blockers on the concentration and oxidizability of plasma lipids *by* S. B. DIMMITT, P. D. WILLIAMS, K. D. CROFT and L. J. BEILIN 573–578
- Elevated heart rate variability in physically active young and older adult women *by* K. P. DAVY, C. A. DESOUZA, P. P. JONES and D. R. SEALS 579–584

Increased plasma adrenomedullin concentrations during cardiac surgery <i>by</i> T. NISHIKIMI, Y. HAYASHI, G. IRIBU, S. TAKISHITA, Y. KOSAKAI, N. MINAMINO, A. MIYATA, H. MATSUO, M. KURO and K. KANGAWA	585–590
How does treatment influence endocrine mechanisms in acute severe heart failure? Effects on cardiac natriuretic peptides, the renin system, neuropeptide Y and catecholamines <i>by</i> C. G. MISSOURIS, E. GROUZMANN, M. G. BUCKLEY, J. BARRON, G. A. MACGREGOR and D. R. J. SINGER	591–599
Acute hypertension impairs endothelium-dependent vasodilatation <i>by</i> J. MILLGÅRD and L. LIND	601–607
Suppression of post-glucose hyperinsulinaemia does not affect blood pressure in either normotensive or hypertensive subjects <i>by</i> M. W. SAVAGE, V. MOHAMED-ALI and G. WILLIAMS	609–614
Cardiovascular autonomic testing in adolescents with Type I (insulin-dependent) diabetes mellitus: an 18-month follow-up study <i>by</i> A. SCARAMUZZA, F. SALVUCCI, S. LEUZZI, A. RADAELLI, G. D'ANNUNZIO, P. FRATINO, R. LORINI and L. BERNARDI	615–621
Increased oxidative stress in rat liver and pancreas during progression of streptozotocin-induced diabetes <i>by</i> R. KAKKAR, S. V. MANTHA, J. RADHI, K. PRASAD and J. KALRA	623–632
Serum leptin level: possible association with haematopoiesis in adolescents, independent of body mass index and serum insulin <i>by</i> H. HIROSE, I. SAITO, T. KAWAI, K. NAKAMURA, H. MARUYAMA and T. SARUTA	633–636
Increased nitric oxide synthesis and inducible nitric oxide synthase expression in patients with alcoholic and non-alcoholic liver cirrhosis <i>by</i> A. SÁNCHEZ-RODRÍGUEZ, M. CRIADO, A. M. RODRÍGUEZ-LÓPEZ, A. ESTELLER, A. MARTÍN DE ARRIBA and J. M. LÓPEZ-NOVOA	637–643
Effect of long-term octreotide and isosorbide dinitrate on haemodynamics in rats with portal vein stenosis <i>by</i> H.-C. LIN, Y.-T. HUANG, Y.-R. CHENG, M.-C. HOU, F.-Y. LEE, F.-Y. CHANG, Y.-T. TSAI and S.-D. LEE	645–650
Deep venous thrombosis: a prospective 3-month follow-up using duplex scanning and strain-gauge plethysmography <i>by</i> M. C. H. JANSSEN, H. WOLLERSHEIM, J. H. HAENEN, W. N. J. C. VAN ASTEN and TH. THIEN	651–656
Colour Doppler sonographic diagnosis of upper limb venous thromboses <i>by</i> K. KRÖGER, C. SCHELO, C. GOCKE and G. RUDOFKY	657–661
Concentration-dependent stimulation of intestinal phase III of migrating motor complex by circulating serotonin in humans <i>by</i> M. LÖRDAL, H. WALLÉN, P. HJEMDAHL, O. BECK and P. M. HELLSTRÖM	663–670
Effect of topical butyrate on rectal epithelial kinetics and mucosal enzyme activities <i>by</i> P. R. GIBSON, D. KILIAS, O. ROSELLA, J. M. DAY, M. ABBOTT, C. F. FINCH and G. P. YOUNG	671–676
Regional differences in protein carboxymethylation in post-mortem human brain <i>by</i> M. GOGGINS, J. M. SCOTT and D. G. WEIR	677–685
CORRECTION	
Mild metabolic alkalosis impairs the natriuretic response to bumetanide in normal human subjects <i>by</i> N. R. LOON and C. S. WILCOX (<i>Clin. Sci.</i> 1998; 94 : 287–292)	687

AUTHOR AND SUBJECT INDEXES