CONTENTS

Volume 88, part 1  January 1995

Guidance for Authors 1995  i–x
Comment  1–2

REGIONAL FOCUS SERIES: Research in New Zealand edited by A. M. Richards
A reappraisal of current hypotheses concerning the possible roles of amylin in physiology, pathology and therapeutics by G. J. S. Cooper  4–7
Osteoporosis research in Auckland by I. R. Reid and T. F. Cundy  12–14
The New Zealand asthma mortality epidemic by R. Beasley, C. Burgess, J. Crane and N. Pearce  14–17
Natriuretic peptides by A. M. Richards, M. G. Nicholls and E. A. Espiner  18–21
Effects of thrombolytic therapy on left ventricular function and the importance of long-term patency of the infarct-related artery by H. D. White  21–24
Betaines: their significance for bacteria and the renal tract by S. T. Chambers  25–27

PAPERS
Impaired renal function in obstructive jaundice: enhanced glomerular thromboxane synthesis and effects of thromboxane receptor blockade in bile duct-ligated rats by H. J. Kramer, K. Schwarting and A. Bäcker  39–45
Production of acute gastric erosions in the cat by individual human pepsins by P. Sacra, N. B. Roberts and W. H. Taylor  47–50
Site of action of platelet-activating factor within the mucosa of rabbit distal colon by S. P. L. Travis, B. Crotty and D. P. Jewell  51–57
Comparison of the modulatory influence of maize and olive oils and butter on metabolic responses to endotoxin in rats by H. T. Besler and R. F. Grimble  59–66
Contractile properties of the quadriceps muscle in growth hormone-deficient hypopituitary adults by O. M. Rutherford, S. A. Beshyah, J. Schott, Y. Watkins and D. G. Johnston  67–71
An abnormal methylation ratio induces hypomethylation in vitro in the brain of pig and man, but not in rat by M. Mckeever, A. Molloy, D. G. Weir, P. B. Young, D. G. Kennedy, S. Kennedy and J. M. Scott  73–79
Comparative effects of atrial natriuretic peptide and brain natriuretic peptide on the aldosterone and pressor responses to angiotensin II in man by R. I. Cargill, A. D. Struthers and B. J. Lipworth  81–86
Spectral analysis of systolic blood pressure and heart rate after heart transplantation in children by I. Constant, A. Girard, J. Le Bidois, E. Villain, D. Laude and J.-L. Elghozi  95–102
Contents

Physiology and pathophysiology of heart rate and blood pressure variability in humans: is power spectral analysis largely an index of baroreflex gain? by P. SLEIGHT, M. T. LA ROVERE, A. MORTARA, G. PINNA, R. MAESTRI, S. LEUZZI, B. BIANCHINI, L. TAVAZZI and L. BERNARDI 103–109

Inhibition of acetylcholinesterase selectively potentiates N\textsuperscript{G}-monomethyl-L-arginine-resistant actions of acetylcholine in human forearm vasculature by P. J. CHOWIENCZYK, J. R. COCKCROFT and J. M. RITTER 111–117

Volume 88, part 2 February 1995

EDITORIAL REVIEW
Assessing cell proliferation: a methodological review by R. A. BOULTON and H. J. F. HODGSON 119–130

RAPID COMMUNICATION
Nitric oxide synthase activity is increased in patients with sepsis syndrome by H. F. GOODE, P. D. HOWDLE, B. E. WALKER and N. R. WEBSTER 131–133

PAPERS
L-Arginine increases exhaled nitric oxide in normal human subjects by S. A. KHARITONOV, G. LUBEY, B. LUBEY, M. HJELM and P. J. BARNES 135–139

Serum and platelet-derived growth factor-induced expression of vascular permeability factor mRNA by human vascular smooth muscle cells in vitro by B. WILLIAMS, A. QUINN-BAKER and B. GALLACHER 141–147

Thrombin does not alter vascular hyporeactivity in models of endotoxin-induced septic shock in rats by V. MARTIN, M.-L. WIESEL, A. ALBERT and A. BERETZ 149–157

Brain natriuretic peptide; effect on left ventricular filling patterns in healthy subjects by P. B. M. CLARKSON, N. M. WHEELEON, C. MACLEOD, W. COUTIE and T. M. MACDONALD 159–164

Haemodynamic and hormonal responses to cardiac pacing in humans: influence of different stimulation sequences and rates by H. BERGLUND, A. EDLUND, E. THEODORSSON and H. VALLIN 165–172

Haemodynamic effects of continuous positive airway pressure in humans with normal and impaired left ventricular function by A. DE HOYOS, P. P. LUI, D. C. BENARD and T. D. BRADLEY 173–178

Regional matching of ventilation and perfusion during lobar bronchial occlusion in man by N. W. MORRELL, K. S. NURAN, T. BIGGS and W. A. SEED 179–184

Screening tests for microalbuminuria in non-diabetic elderly subjects and their relation to blood pressure by M. A. JAMES, M. D. FOTHERBY and J. F. POTTER 185–190


Acute effect of parathyroid hormone on urine concentration in the rat by S. L. CARNEY and A. H. B. GILLIES 197–201

Prolonged hyperalimentation as a possible cause of renal tubular dysfunction: evaluation of 1,5-anhydro-D-glucitol resorption and N-acetylglucosaminidase excretion in humans by T. YAMANOUCHI, S. MINODA, N. OGATA, Y. TACHIBANA, N. SEKINO, H. MIYASHITA and I. AKAOKA 203–210

Production of eicosanoids and cytokines by Kupffer cells from young and old rats stimulated by endotoxin by A. BROUWER, S. G. PARKER, H. F. J. HENDRIKS, L. GIBBONS and M. A. HORAN 211–217

Effects of dietary polyunsaturated fatty acids on small intestinal secretory and absorptive function: studies in rat jejunum in vitro by K. J. LINDLEY, D. P. R. MULLER and P. J. MILLA 219–224


Acute stimulation of albumin synthesis rate with oral meal feeding in healthy subjects measured with [ring-\textsuperscript{2}H\textsubscript{3}]phenylalanine by K. A. HUNTER, P. E. BALLMER, S. E. ANDERSON, J. BROOM, P. J. GARLICK and M. A. MCNURLAN 235–242
CORRESPONDENCE
Measurement of intestinal calcium absorption by using stable strontium by
T. M. Reynolds

Measurement of intestinal calcium absorption by using stable strontium: author's reply by
A. Blumsohn and R. Eastell

SUPPLEMENT
Communications for the Autumn Meeting of the Medical Research Society on 3 and 4 November in conjunction with the Science and Medicine Conference at the Royal College of Physicians, London

Volume 88, part 3
March 1995

EDITORIAL REVIEW
Endothelium-mediated vascular function in insulin-dependent diabetes mellitus by L. Poston and P. D. Taylor

GLAXO/MRS YOUNG INVESTIGATOR PRIZE
A map of the heart: gap junctions, connexin diversity and retroviral studies of conduction myocyte lineage by R. G. Gourdie

PAPERS

Impaired platelet aggregation after cardiopulmonary bypass in man: enhancement of collagen-induced aggregation in whole blood and plasma by adrenaline ex vivo by V. C. Menys, P. R. Belcher, M. I. M. Noble, G. E. Drossos, R. Pillai and S. Westaby

Role of protein kinase C in the anti-aggregatory effects of endothelin-1 on human platelets by R. M. Touyz and E. L. Schifferlin

Effects of insulin-like growth factor-1 and growth hormone on the net flux of amino acids across the hind limbs in the surgically traumatized pig by K. Malmöf, Z. Cortova, H. Saxeholt, E. Karlsson, V. Arrhenius-Nyberg and A. Skottner

Insulin unresponsiveness of tubular monovalent cation transport during fructose-induced hypertension in rats by E. Feraille, S. Marsy, C. Barlet-Bas, M. Rousselet, L. Cheval, H. Favre and A. Doucet


Human erythrocyte membrane fluidity and calcium pump activity in primary combined hyperlipidaemia by S. I. Muzulu, R. F. Bing and R. I. Norman

Dual-energy X-ray absorptiometry measurements of body composition: effects of depth and tissue thickness, including comparisons with direct analysis by S. A. Jebb, G. R. Goldberg, G. Jennings and M. Elia

Effect of fenspiride on pulmonary function in the rat and guinea pig by D. Bee, E. A. Laude, C. J. Emery and P. Howard

Sulphonamides as anti-inflammatory agents: old drugs for new therapeutic strategies in neutrophilic inflammation? by L. Ottoneillo, P. Dapino, M. C. Scarico, A. Balbi, M. Bevilacqua and F. Dallegr


Relation between uroporphyrin excretion, acute attacks of hereditary coproporphyria and successful treatment with haem arginate by N. SCHOENFELD, R. MAMET, I. DOTAN, M. SZTERN, Y. LEVO and D. ADERKA 365–369

CORRESPONDENCE
Superoxide dismutases in idiopathic pulmonary fibrosis by B. GRIGOLO, R. M. BORZI, L. FASANO, M. FABBRI, R. MELICONI and A. FACCHINI 371

Volume 88, part 4 April 1995

Comment 373–374

REPORT
The influence of trans fatty acids on health: a report from The Danish Nutrition Council by S. STENDER, J. DYERBERG, G. HOLMER, L. OVESEN and B. SANDSTRÖM 375–392

GLAXO/MRS YOUNG INVESTIGATOR PRIZE
Chemokines and human infection by J. S. FRIEDLAND 393–400

RAPID COMMUNICATION
Combined intestinal trefoil factor and epidermal growth factor is prophylactic against indomethacin-induced gastric damage in the rat by R. CHINERY and R. J. PLAYFORD 401–403

PAPERS
Metabolic acidosis is a potent stimulus for cellular inorganic phosphate generation in uraemia by A. BEVINGTON, D. BROUGH, F. E. BAKER, J. HATTERSLEY and J. WALLS 405–412


Comparison of intraperitoneal and subcutaneous insulin administration on insulin sensitivity and serum lipids in type 1 diabetic patients on continuous ambulatory peritoneal dialysis treatment by J. T. LAHTELA, J. MUSTONEN and A. PASTERNAK 427–432

Investigation of the mechanism of β2-agonist-induced activation of the renin–angiotensin system by E. A. MILLAR, G. T. MCINNES and N. C. THOMSON 433–437

Sympathoadrenal responses to bronchoconstriction in asthma: an invasive and kinetic study of plasma catecholamines by K. LARSSON, P. CARLENS, S. BEVEGÅRD and P. HJEMDAHL 439–446


Is voluntary control of breathing impaired in patients with chronic obstructive pulmonary disease? by E. COHEN, K. MURPHY, L. ADAMS, A. GUZ and G. BENCHETRIT 453–461

Relationship between plasma volume, carotid baroreceptor sensitivity and orthostatic tolerance by H. EL-SAYED and R. HAINSWORTH 463–470

Demonstration of hypomethylation of proteins in the brain of pigs (but not in rats) associated with chronic vitamin B12 inactivation by M. MCKEEVER, A. MOLLOY, P. YOUNG, S. KENNEDY, D. G. KENNEDY, J. M. SCOTT and D. G. WEIR 471–477


<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human skeletal muscle protein: effect of malnutrition, elective surgery and total parenteral nutrition</td>
<td>B. Petersson, E. Hultman, K. Andersson and J. Wernerman</td>
<td>479–484</td>
</tr>
<tr>
<td>n-Butyrate mediation of ganglioside expression of human and murine cancer cells demonstrates relative cell specificity</td>
<td>C. S. Berenson, M. A. Patterson, J. A. Miqdadi and P. Lance</td>
<td>491–499</td>
</tr>
<tr>
<td>Peripheral microvascular function in human heart failure</td>
<td>I. R. Mahy and J. E. Tooke</td>
<td>501–508</td>
</tr>
<tr>
<td>GLAXO/MRS YOUNG INVESTIGATOR PRIZE</td>
<td>W. G. Haynes</td>
<td>509–517</td>
</tr>
<tr>
<td>Selective impairment of acetylcholine-mediated endothelium-dependent relaxation in isolated resistance arteries of the streptozotocin-induced diabetic rat</td>
<td>P. D. Taylor, J. E. Graves and L. Poston</td>
<td>519–524</td>
</tr>
<tr>
<td>Effects of sodium status on the venous response to noradrenaline infusion in pre-ascitic cirrhosis</td>
<td>F. Wong, A. Bomzon, A. Logan and L. Blendis</td>
<td>525–531</td>
</tr>
<tr>
<td>Glucose-induced thermogenesis in splanchnic and leg tissues in man</td>
<td>L. Simonsen, C. Ryge and J. Bulow</td>
<td>543–550</td>
</tr>
<tr>
<td>Increased secretion of atrial and brain natriuretic peptides during acute myocardial ischaemia induced by dynamic exercise in patients with angina pectoris</td>
<td>K. Marumoto, M. Hamada and K. Hiwada</td>
<td>551–556</td>
</tr>
<tr>
<td>Stimulation of DNA and RNA synthesis in cultured rabbit cardiac fibroblasts by angiotensin IV</td>
<td>L. Wang, M. Eberhard and P. Erne</td>
<td>557–562</td>
</tr>
<tr>
<td>Glucocorticoid-suppressible hyperaldosteronism: effects of crossover site and parental origin of chimaeric gene on phenotypic expression</td>
<td>A. Jamieson, L. Slutsker, G. C. Inglis, R. Fraser, P. C. White and J. M. C. Connell</td>
<td>563–570</td>
</tr>
<tr>
<td>Reduced expression of neurofibromin in the soft tissue tumours obtained from patients with neurofibromatosis type 1</td>
<td>K. Takahashi, H. Suzuki, M. Hatori, Y. Abe, S. Kokubun, M. Sakurai and S. Shibahara</td>
<td>581–585</td>
</tr>
<tr>
<td>Role of cardiorespiratory abnormalities in the manifestations of neurological decompression illness</td>
<td>P. Wilmshurst and P. Bryson</td>
<td>595</td>
</tr>
<tr>
<td>Mechanism producing spinal cord symptoms in decompression sickness following a non-provocative dive</td>
<td>E. P. Kindwall</td>
<td>595–596</td>
</tr>
</tbody>
</table>
EDITORIAL REVIEW
Postprandial protein utilization and protein quality assessment in man by D. J. Millward and P. J. Pacy

RAPID COMMUNICATION

PAPERS
Endothelium-dependent relaxation of small arteries from essential hypertensive patients: mechanisms and comparison with normotensive subjects and with responses of vessels from spontaneously hypertensive rats by L.-Y. Deng, J.-S. Li and E. L. Schiffрин
Adriamycin-related hypertension in pregnant rats: response to a thromboxane receptor antagonist by M. Rathaus, E. Podiarny, A. Pomeranz, J. Green and J. Bernheim
Microalbuminuria reflects a generalized transvascular albumin leakiness in clinically healthy subjects by J. S. Jensen, K. Borch-Johnsen, G. Jensen and B. Feldt-Rasmussen
Effects of exercise and nitrates on blood flow in internal mammary artery to coronary artery grafts: a non-invasive study by A. Mauric, N. J. Samani and D. P. de Bono
Comparison of arterial occlusion and ischaemic exercise for the study of vasodilatation in the human calf by P. A. Rueckert and P. Hanson
Effect of blockade of nitric oxide synthesis on the renin secretory response to frusemide in conscious rabbits by I. A. Reid and L. Chou
Plasma semicarbazide-sensitive amine oxidase activity is elevated in diabetes mellitus and correlates with glycosylated haemoglobin by F. Boomsmma, F. H. M. Derkx, A. H. van den MEiracker, A. J. man in't Veld and M. A. D. H. Schalekamp
Comparative effects of recombinant human insulin-like growth factor I and insulin on whole-body and forearm palmitate metabolism in man by R. Laager, R. Ninnis and U. Keller
Effect of extracellular potassium concentration on the sodium–potassium pump rate in human lymphocytes by G. D. Webb, E. A. Taylor, V. M. S. Oh, S.-B. Yeo and L. L. Ng
Accuracy of breath-by-breath analysis of flow–volume loop in identifying sleep-induced flow-limited breathing cycles in sleep apnoea–hypopnoea syndrome by F. SERIES and I. Marc
Biosynthesis of platelet-activating factor in normal and inflamed human colon mucosa: evidence for the involvement of the pathway of platelet-activating factor synthesis de novo in inflammatory bowel disease by C. B. Appleyard and K. Hillier
Long-term fructose versus corn starch feeding in the spontaneously hypertensive rat by M. R. van der Schaaf, J. A. Jones, A. van Tol and H. A. Koomans

CORRECTION

Physiology and pathophysiology of heart rate and blood pressure variability in humans: is power spectral analysis largely an index of baroreflex gain? by P. Sleight, M. T. La Rovere, A. Mortara, G. Pinna, R. Maestri, S. Leuzzi, B. Bianchini, L. Tavazzi and L. Bernardi 733

AUTHOR INDEX

SUBJECT INDEX