CONTENTS

Vol. 73, No. 1    July 1987

EDITORIAL
The changing face of Clinical Science. In the shadow of Thomas Lewis 1–2

Carnitine acyltransferases and acyl-CoA hydrolases in human and rat liver
L. AGIUS, P. D. WRIGHT and K. G. M. M. ALBERTI 3–10

Unilateral renal ischaemia in the rat: effect of method of occlusion of the blood supply on function of ipsilateral and contralateral kidneys
O. S. FERWANA and S. C. PIRIE 11–17

Elastase inhibitors in sputum from bronchitic patients with and without \( \alpha \)-protease inhibitor deficiency: partial characterization of a hitherto unquantified inhibitor of neutrophil elastase

Erythrocyte phosphoinositide metabolism in essential hypertensive patients and their normotensive offspring
A. RIOZZI, A. M. HEAGERTY, J. D. OLLERENSHAW and J. D. SWALES 29–32

Effect of different levels of protein intake on renal deterioration and nutritional state in experimental renal disease
S. OKUDA, K. MOTOMURA, T. SANAI, H. HIRAKATA, F. NANISHI, K. ONOYAMA and M. FUISHIMA 33–39

Energy expenditure in non-insulin dependent diabetic subjects on metformin or sulphonylurea therapy
P. LESLIE, R. T. JUNG, T. E. ISLES and J. BATY 41–45

The influence of pregnancy on drug action: concentration–effect modelling with propranolol
P. C. RUBIN, L. BUTTERS, R. McCAVE and A. KELMAN 47–52

A comparison of the structural integrity of several commonly used preparations of rat small intestine in vitro
J. A. PLUMB, D. BURSTON, T. G. BAKER and M. L. G. GARDNER 53–59

Effects of sodium replacement on uptake of the dipeptide glycylsarcosine by hamster jejunum in vitro
D. BURSTON and D. M. MATTHEWS 61–68

The effect of indomethacin on the response of protein synthesis to feeding in rats and man

Chlorpropamide alcohol flushing: a normal response?
P. J. HOSKINS, P. G. WILES, H. P. VOLLMANN and D. A. PYRE 77–80

Blood fuel metabolites in asthma during and after progressive submaximal exercise
G. E. PACKE, J. WIGGINS, B. M. SINGH, M. NATTLESS, A. D. WRIGHT and R. M. CAYTON 81–86

Water depletion, not oral sodium loading, increases levels of sodium, potassium-dependent adenosine triphosphatase inhibitors in rat plasma
R. M. WELLARD and W. R. ADAM 87–92

Does dopamine regulate aldosterone secretion in the rat?

Platelet catecholamines and platelet function in normal human subjects

Free d-amino acids in human plasma in relation to senescence and renal diseases

Platelet sodium kinetics, blood pressure and serum urate: aberrations in non-obese men at risk for type 2 diabetes mellitus
K. BERNTORP, F. LINDEGARDE and I. MATTRASSON 109–116

The influence of oral alkali citrate on intestinal calcium absorption in healthy man
G. ROSMENAPP and P. O. SCHWILLE 117–121
CORRESPONDENCE SECTION
Dihydroxyphenylglycol and dihydroxyxamendelic acid during intravenous infusions of noradrenaline
G. EISENHOFFER, D. S. GOLDSTEIN, R. STULL, T. G. ROPECHAK, H. R. KIEFER and I. J. KOPIN 123–125
What does lithium clearance measure during osmotic diuresis?
Prostacyclin in the circulation of patients with vascular disorders undergoing surgery
J. Y. JEREMY, D. P. MIKHAILIDIS, M. A. BARRADAS and P. DANDONA 127

Vol. 73, No. 2  August 1987

EDITORIAL REVIEW
The effect of trauma and surgery on interorgan fluxes of amino acids in man
J. WERNERMAN and E. VINNARS 129–133

Multifactorial evaluation of blood pressure fall upon hospitalization in essential hypertensive patients
H. NISHIMURA, A. NISHIOKA, S. KUBO, M. SUWA, M. KINO and K. KAWAMURA 135–141
Comparison of the natriuretic response to atriopeptin III and loop diuretic in the isolated perfused rat kidney
The effect of intravenous fruseamide on urine dopamine in normal volunteers: studies with indomethacin and carbidopa
Fatty acid synthesis and triacylglycerol accumulation in rat liver after chronic ethanol consumption
S. VENKATESAN, R. J. WARD and T. J. PETERS 159–163
The gut in the acute phase response: changes in colonic and hepatic enzyme activity in response to dermal inflammation in the rat
C. W. HUTTON, A. P. CORFIELD, J. R. CLAMP and P. A. DIEFFE 165–169
Acute effect of a thromboxane synthetase inhibitor on renal function in unanaesthetized sheep
A. D. CUMMING, R. M. LINDSAY, J. W. D. MCDONALD and A. L. LINTON 171–176
Ventilatory responses to inhaled carbon dioxide at rest and during exercise in man
M. S. JACOBI, V. I. IYAVE, C. P. PATIL, A. R. C. CUMMIN and K. B. SAUNDERS 177–182
Intracisternal administration of pergolide, a dopamine receptor agonist, triggers the release of an inhibitor of ouabain-sensitive sodium, potassium-dependent adenosine triphosphatase and enhances vascular reactivity in anaesthetized dogs
B. S. JANDHYALA, M. F. LOKHANDWALA, S. D. KIVLIGH, A. F. ANSARI and M. L. DE FEO 183–188
Permeability of the rat small intestine to carbohydrate probe molecules
Evaluation of mannitol, lactulose and 51Cr-labelled ethylenediaminetetra-acetate as markers of intestinal permeability in man
M. ELLA, R. BEHRENS, C. NORTHROP, P. WRAIGHT and G. NEALE 197–204
Effect of total starvation and very low calorie diets on intestinal permeability in man
M. ELLA, A. GOREN, R. BEHRENS, R. W. BARBER and G. NEALE 205–210
Disturbance of acid–base balance in the young spontaneously hypertensive rat
P. A. LUCAS, B. LACOUR, D. A. MCCARRON and T. DRIEKE 211–215
Measurement of secretion in nasal lavage
H. BISEGAARD, O. W. KROGSGAARD and N. MYGIND 217–222
Erythrocyte cation fluxes during the menstrual cycle in normal female subjects
J. C. MONAGHAN, D. A. WILLCOCKS, M. J. SINOSICH and G. S. STOKES 223–226
Deferoxamine-induced bone changes in haemodialysis patients: a histomorphometric study
SHORT COMMUNICATION
Relationship between hepatic levels of glutathione and sulphobromophthalein retention in hyperthyroidism

CORRESPONDENCE SECTION
Blood pressure in the puerperium
Measurement of dead-space volume
E. A. HARRIS 239–240
Putative roles of vasopressin and adrenaline in the mediation of acute changes in haemostatic function
R. J. M. CORALL, R. G. WEBBER AND B. M. FRIER 240

Vol. 73, No. 3 September 1987

Influence of fasting on leucine and muscle protein metabolism across the human forearm determined using 1-[1-14C]leucine as the tracer
K. N. CHENG, P. J. PACY, F. DWORZAK, G. C. FORD AND D. HALLIDAY 241–246
Evidence for large intestinal control of potassium homoeostasis in uraemic patients undergoing long-term dialysis
Influence of the sympathetic nervous system and vasopressin on the blood pressure lowering effect of nifedipine in deoxycorticosterone acetate-salt hypertensive rats
Y. TAKATA, Y. YAMASHITA, S. TAKASHITA AND M. FUISHIMA 253–258
Abnormal diurnal urinary sodium and water excretion in diabetic autonomic neuropathy
The effects of posture on abnormalities of forearm venous tone in women with pregnancy-induced hypertension
K. STAINER, C. PICKLES AND A. J. COWLEY 267–269
Enhanced diurnal variation of blood pressure in the renal hypertensive rat: effect of angiotensin II suppression
Decreased systemic formation of prostaglandin E and prostacyclin, and unchanged thromboxane formation, in alcoholics during withdrawal as estimated from metabolites in urine
U. FÖRSTERMANN AND T. J. FEUSERSTEIN 277–283
Dissociation between plasma atrial natriuretic peptide levels and urinary sodium excretion after intravenous saline infusion in normal man
Evidence for an inhibitor of leucocyte sodium transport in the serum of neonates
Bronchial hyper-responsiveness after human cardiopulmonary transplantation
Loop-acting diuretics do not bind to Tamm–Horsfall urinary glycoprotein
M. C. BRUNISHOE, K. L. LYNN AND J. S. HUNT 305–310
Breathlessness and respiratory mechanics during reflex or voluntary hyperventilation in patients with chronic airflow limitation
S. FREEDMAN, R. LANE AND A. GUZ 311–318
Measurement of lung tissue mass, thoracic blood and interstitial volumes by transmission/echolocation scanning using 99mTecertechnetate
The role of superoxide anion and hydrogen peroxide in glomerular injury induced by puromycin aminonucleoside in rats
M. BEAMAN, R. BIRTWISTLE, A. J. HOWIE, J. MICHAEL AND D. ADU 329–332
SHORT COMMUNICATION
Detection of hypercapnia by normal subjects
R. M. SCHWARTZSTEIN, K. LA HIVE, A. POPE, R. A. STEINBROOKE, D. E. LEITH,
J. W. WEISS, V. FENCL and S. E. WEINBERGER 333–335

Vol. 73, No. 4 October 1987

Changes in plasma renin, insulin, aldosterone and arginine vasopressin during plasmapheresis
M. RAINFRAY, W. PRUSZCZYNSKI, A. BUSSEL and R. ARDAILLOU 337–341

Bile acid binding to dietary casein: a study in vitro and in vivo
A. LANZINI, W. J. F. FITZPATRICK, M. G. PIGOZZI and T. C. NORTHFIELD 343–350

Human alveolar gas-mixing efficiency for gases of differing diffusivity in health and airflow limitation
E. A. HARRIS, P. R. BUCHANAN and R. M. L. WHITLOCK 351–359

Increased arachidonic acid levels in phospholipids of human colonic mucosa in inflammatory bowel disease
S. PACHECO, K. HILLIER and C. SMITH 361–364

Intravenously administered fruseamide increases glomerular permeability
I. ALA-HOUHALA, H. VAPAATALO and A. PARTANEN 365–370

Substrate induction of bilirubin conjugation and biliary excretion in the rat
M. E. MUÑOZ, A. ESTELLER and J. GONZALEZ 371–375

Renal response to vasopressin and indomethacin in cisplatin-treated rats
C. J. LOTE, E. S. HARPUR, A. THEWLES and D. J. PHIFFS 377–381

Adaptation to exercise-induced muscle damage
P. M. CLARKSON, W. C. BYRNE, E. GILLISSON and E. HARPER 383–386

Lack of effect of acute ethanol consumption on active cation fluxes of leucocytes and erythrocytes in healthy humans
R. J. GREEN and D. N. BARON 387–393

Tubular prostaglandin E2 production and its role in urinary hypotonicity after release of ureteral occlusion in the rat
S. TORIKAI 395–399

Increased bronchial reactivity to histamine in diabetic autonomic neuropathy
G. B. RHIND, G. A. GOULD, D. J. EWING, B. F. CLARKE and N. J. DOUGLAS 401–405

Are lymphocyte β-adrenoceptors altered in patients with cystic fibrosis?

Effects of a single moderate dose of alcohol on blood pressure, heart rate and associated metabolic and endocrine changes
and G. T. McINNES 411–416

Metabolic and ventilatory responses during very low level exercise
S. A. GOLDSTEIN, C. WEISSMAN, J. ASKANAZI, M. ROTHKOPF, J. MILIC-EMILJ
and J. M. KINNEY 417–424

Serum bile acid profile in thyroid dysfunction and effect of medical treatment

Human atrial natriuretic polypeptide during escape from mineralocorticoid excess
I. MIYAMORI, M. IKEDA, T. MATSUBARA, S. OKAMOTO, H. KOISHIDA, T. MORISE
and R. TAKEDA 431–436

The effects of atrial fibrillation on coronary blood flow and performance of ischaemic myocardium in dogs with coronary artery stenosis
G. ERTL, M. MEESMANN, K. KRUMPIEGEL and K. KOCHSIEK 437–444

CORRESPONDENCE SECTION
Free fatty acids and leucocyte sodium transport
L. POSTON, J. MORRIS and P. J. HILTON 445–446

Hypomagnesaemia and increased sympathetic nervous system activity in the alcohol withdrawal syndrome
S. DE MARCHI and E. CECCHIN 447
Contents

Vol. 73, No. 5  November 1987

EDITORIAL REVIEW
Clinical applications of thyrotrophin-releasing hormone  E. C. GRIFFITHS 449–457

RAPID COMMUNICATION


The effect of weight loss, operation and parenteral nutrition on fat clearance in patients with colorectal cancer  A. W. WILSON, C. J. C. KIRK and A. W. GOODE 497–500

Influence of exercise on ascorbic acid status in man  M. GLEESON, J. D. ROBERTSON and R. J. MAUGHAN 501–505

Ageing and the α2-adrenergic system of the platelet  P. B. DAVIS and C. SLSKI 507–513


Voluntary isocapnic hyperventilation and breathlessness during exercise in normal subjects  R. LANE, A. COCKCROFT and A. GUZ 519–523


Evidence for γ-aminobutyric acid as the inhibitor of γ-aminobutyric acid binding in the plasma of humans with liver disease and hepatic encephalopathy  L. J. LEVY, J. LEEK and M. S. LOSOWSKY 531–534

Impaired insulin-mediated erythrocyte magnesium accumulation in essential hypertension  G. PAOLISSO, N. PASSARIELLO, S. SGAMBATO, R. TORECCA, R. BUONINCONTI,  M. VARRICCHIO and F. D'ONOFRIO 535–539

Muscle strength in healthy White and Asian subjects: the relationship of quadriceps maximum voluntary contraction to age, sex, body build and vitamin D  S. SHAUNAK, L. ANG, K. COLSTON, S. PATEL, M. BLAND and J. D. MAXWELL 541–546

Endothelium-dependent relaxation in isolated human arteries and veins  S. THOM, A. HUGHES, G. MARTIN and P. S. SEVER 547–552

SHORT COMMUNICATIONS
Time course of end-expired carbon monoxide concentration is important in studies of cigarette smoking  G. WOODMAN, D. M. WINTONIUK, R. G. TAYLOR and S. W. CLARKE 553–555

Familial pseudohyperkalaemia: inhibition of erythrocyte K+ efflux at 4°C by quinine  D. R. JAMES and D. STANSBIE 557–560
EDITORIAL REVIEW
The pathogenesis and significance of bronchial hyper-responsiveness in airways disease
S. T. Holgate, R. Beasley and O. P. Twentyman 561–572

Specific binding of atrial natriuretic peptide to rat mesenteric artery: effect of calcium and 5-guanylylimidodiphosphate
F. Lyall and J. J. Morton 573–579

Vitamin B₁₂ homoeostasis after haemorrhage in the rat: the importance of skeletal muscle
H. R. Bhatt and J. C. Linnell 581–587

Endogenous vasopressin affects postural control of blood pressure in man
H. C. R. Simpson, J. E. Zubillaga, J. G. Collier, E. D. Bennett, N. Mehta,
V. T. Y. Ang and J. S. Jenkins 589–592

The kidney and cardiovascular system in obstructive jaundice: functional and metabolic studies in conscious rats
S. Heidenreich, E. Brinkema, A. Martin, R. Dusing, J. Kipnoksi
and H. J. Kramer 593–599

Glucocorticosteroid status in chronic alcoholics with and without skeletal muscle myopathy
P. Duane and T. J. Peters 601–603

The response of intracellular and surface ferritin after T-cell stimulation in vitro
K. Pattanapanyasat, T. G. Hoy and A. Jacobs 605–611

Haemodynamic changes in man during immersion in water at different temperatures
C. F. M. Weston, J. P. O'Hare, J. M. Evans and R. J. M. Corrall 613–616

Is hypercapnia necessary for the ventilatory response to exercise in man?
K. Murphy, R. P. Stidwell, B. A. Cross, K. D. Leaver, E. Anastassiadis,
M. Phillips, A. Guz and S. J. G. Semple 617–625

Is low-level respiratory resistive loading during exercise perceived as breathlessness?
R. Lane, L. Adams and A. Guz 627–634

Peripheral vascular responses during carotid baroreceptor stimulation in normotensive and hypertensive subjects
D. Duprez, N. De Pue and D. L. Clement 635–640

Prostanoid synthesis by isolated rat glomeruli: effect of oestrous cycle and pregnancy
I. Gregoire, J. P. Dupouy, P. Fievet, J. D. Seraer and A. Fournier 641–644

Lithium clearance in man: effects of dietary salt intake, acute changes in extracellular fluid volume, amiloride and frusemide
J. C. Atherton, R. Green, S. Hughes, V. McFall, J. A. Sharples, L. R. Solomon
and L. Wilson 645–651

Effects of sodium loading on the renal synthesis of prostanoids in the rat
M. Rathaus, E. Podjarny, J. Shapiro, N. Kariv and J. Bernheim 653–657

Metabolic inactivation of vitamin D is enhanced in primary hyperparathyroidism
M. R. Clements, M. Davies, D. R. Fraser, G. A. Lumb, E. B. Mawer
and P. H. Adams 659–664

SHORT COMMUNICATIONS
Effect of verapamil on polycythaemia secondary to hypoxia in rats

An increase in cerebral benzodiazepine receptors induced by a subacute administration of ammonia, mercaptans and short-chain fatty acids in rats
M. Baraldi, M. L. Zeneroli, E. Ventura and C. Vezzelli 669–671