

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 α_1 -proteinase inhibitor deficiency: partial characterization of a hitherto unquantified inhibitor of neutrophil elastase
H. M. MORRISON, J. A. KRAMPS, S. C. AFFORD, D. BURNETT, J. H. DIJKMAN and R. A. STOCKLEY 19-28
- 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. FUJISHIMA 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. MCCABE 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
M. A. McNURLAN, K. C. McHARDY, J. BROOM, E. MILNE, L. M. FEARNES, P. J. REEDS and P. J. GARLICK 69-75
- Chlorpropamide alcohol flushing: a normal response?
P. J. HOSKINS, P. G. WILES, H. P. VOLKMANN and D. A. PYKE 77-80
- Blood fuel metabolites in asthma during and after progressive submaximal exercise
G. E. PACKE, J. WIGGINS, B. M. SINGH, M. NATTRASS, 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?
G. C. INGLIS, C. J. KENYON, J. A. M. HANNAH, J. M. C. CONNELL and S. G. BALL 93-97
- Platelet catecholamines and platelet function in normal human subjects
A. P. WILSON, C. C. T. SMITH, B. N. C. PRITCHARD and D. J. BETTERIDGE 99-103
- Free D-amino acids in human plasma in relation to senescence and renal diseases
Y. NAGATA, T. AKINO, K. OHNO, Y. KATAOKA, T. UEDA, T. SAKURAI, K.-I. SHIROSHITA and T. YASUDA 105-108
- Platelet sodium kinetics, blood pressure and serum urate: aberrations in non-obese men at risk for type 2 diabetes mellitus
K. BERNTORP, F. LINDGARDE and I. MATTIASSON 109-116
- The influence of oral alkali citrate on intestinal calcium absorption in healthy man
G. RÜMENAPF and P. O. SCHWILLE 117-121

CORRESPONDENCE SECTION

- Dihydroxyphenylglycol and dihydroxymandelic acid during intravenous infusions of noradrenaline
G. EISENHOFER, D. S. GOLDSTEIN, R. STULL, T. G. ROPCHAK, H. R. KEISER and I. J. KOPIN 123-125
- What does lithium clearance measure during osmotic diuresis?
P. SKØTT, N. E. BRUUN, J. GIESE, N.-H. HOLSTEIN-RATHLOU and P. P. LEYSSAC 126-127
- 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
A. ITABASHI, L. CHAN, J. I. SHAPIRO, C. CHEUNG and R. W. SCHRIER 143-150
- The effect of intravenous frusemide on urine dopamine in normal volunteers: studies with indomethacin and carbidopa
R. F. JEFFREY, T. M. MACDONALD, M. RUTTER, S. FREESTONE, J. BROWN, R. R. SAMSON and M. R. LEE 151-157
- 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. DIEPPE 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. IYAWA, C. P. PATIL, A. R. C. CUMMIN and K. B. SAUNDERS 177-182
- Intracisternal administration of pergolidol, 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. KIVLIGHN, A. F. ANSARI and M. L. DE FEO 183-188
- Permeability of the rat small intestine to carbohydrate probe molecules
I. HAMILTON, J. ROTHWELL, D. ARCHER and A. T. R. AXON 189-196
- Evaluation of mannitol, lactulose and ⁵¹Cr-labelled ethylenediaminetetra-acetate as markers of intestinal permeability in man
M. ELIA, 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. ELIA, 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. DRÜEKE 211-215
- Measurement of secretion in nasal lavage
H. BISGAARD, 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
S. A. CHARHON, P. CHAVASSIEUX, G. BOIVIN, M. PARISIEN, M.-C. CHAPUY, J. TRAEGER and P. J. MEUNIER 227-234

SHORT COMMUNICATION

- Relationship between hepatic levels of glutathione and sulphobromophthalein retention in hyperthyroidism
T. SIR, C. WOLFF, J. R. SOTO, G. PEREZ and R. A. MERINO 235-237

CORRESPONDENCE SECTION

- Blood pressure in the puerperium
N. MCD. DAVIDSON 239
- 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 L-[1-¹³C, ¹⁵N]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 homeostasis in uraemic patients undergoing long-term dialysis
G. I. SANDLE, E. GAIGER, S. TAPSTER and T. H. J. GOODSHIP 247-252
- 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. FUJISHIMA 253-258
- Abnormal diurnal urinary sodium and water excretion in diabetic autonomic neuropathy
G. M. BELL, W. REID, D. J. EWING, A. D. CUMMING, M. L. WATSON, A. DOIG and B. F. CLARKE 259-265
- 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
E. C. H. WALLACE, A. J. BALMFORTH and J. J. MORTON 271-275
- 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. FEUERSTEIN 277-283
- Dissociation between plasma atrial natriuretic peptide levels and urinary sodium excretion after intravenous saline infusion in normal man
D. R. J. SINGER, A. C. SHORE, N. D. MARKANDU, M. G. BUCKLEY, G. A. SAGNELLA and G. A. MACGREGOR 285-289
- Evidence for an inhibitor of leucocyte sodium transport in the serum of neonates
J. F. MORRIS, M. D. McEACHERN, L. POSTON, S. E. SMITH, M. J. MULVANY and P. J. HILTON 291-297
- Bronchial hyper-responsiveness after human cardiopulmonary transplantation
A. R. GLANVILLE, C. M. BURKE, J. THEODORE, J. C. BALDWIN, J. HARVEY, A. VANKESSEL and E. D. ROBIN 299-303
- Loop-acting diuretics do not bind to Tamm-Horsfall urinary glycoprotein
M. C. BRUNISHOLZ, 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/emission scanning using [^{99m}Tc]pertechnetate
B. A. BRIGGS, T. M. BRADLEY, P. VERNON, N. T. COOKE, C. DRINKWATER, M. K. GILLETT and P. D. SNASHALL 319-327
- 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 frusemide increases glomerular permeability
I. ALA-HOUHALA, H. VAPAATALO and A. PASTERNAK 365-370
- Substrate induction of bilirubin conjugation and biliary excretion in the rat
M. E. MUÑOZ, A. ESTELLER and J. GONZÁLEZ 371-375
- Renal response to vasopressin and indomethacin in cisplatin-treated rats
C. J. LOTE, E. S. HARPUR, A. THEWLES and D. J. PHIPPS 377-381
- Adaptation to exercise-induced muscle damage
P. M. CLARKSON, W. C. BYRNES, 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?
R. D. FELDMAN, R. B. FICK, W. McARDLE and C. C.-Y. LAI 407-410
- Effects of a single moderate dose of alcohol on blood pressure, heart rate and associated metabolic and endocrine changes
D. J. STOTT, S. G. BALL, B. C. INGLIS, D. L. DAVIES, R. FRASER, G. D. MURRAY 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-EMILI and J. M. KINNEY 417-424
- Serum bile acid profile in thyroid dysfunction and effect of medical treatment
T. KOSUGE, T. BEPPU, T. KODAMA, K. HIDAI and Y. IDEZUKI 425-429
- Human atrial natriuretic polypeptide during escape from mineralocorticoid excess in man
I. MIYAMORI, M. IKEDA, T. MATSUBARA, S. OKAMOTO, H. KOSHIDA, 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

EDITORIAL REVIEW

Clinical applications of thyrotrophin-releasing hormone

E. C. GRIFFITHS 449-457

RAPID COMMUNICATION

Paradoxical inhibition of atrial natriuretic peptide release during pacing-induced hypotension

P. ERNE, A. E. G. RAINE, E. BURGISSER, E. GRADEL, F. BURKART and
F. R. BUHLER 459-462

Whole body leucine turnover and nutritional status in continuous ambulatory peritoneal dialysis

T. H. J. GOODSHIP, S. LLOYD, M. B. CLAGUE, K. BARTLETT, M. K. WARD
and R. WILKINSON 463-469

Short-term studies on the use of amino acids as an osmotic agent in continuous ambulatory peritoneal dialysis

T. H. J. GOODSHIP, S. LLOYD, P. W. MCKENZIE, M. EARNSHAW, I. SMEATON,
K. BARTLETT, M. K. WARD and R. WILKINSON 471-478

Studies to assess the biological relevance of anti-Tamm-Horsfall protein antibodies detected by direct-binding enzyme-linked immunosorbent assay

J. S. HUNT, A. GROUFSKY and K. L. LYNN 479-487

Diurnal change in plasma atrial natriuretic peptide concentrations

A. M. RICHARDS, G. TONOLO, R. FRASER, J. J. MORTON, B. J. LECKIE,
S. G. BALL and J. I. S. ROBERTSON 489-495

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 α_2 -adrenergic system of the platelet

P. B. DAVIS and C. SILSKI 507-513

Haemodialysis-associated amyloidosis: β_2 -microglobulin alone or associated with globin chains?A. ARGILES, G. MOURAD, C. AXELRUD-CAVADORE, J. DERANCOURT,
J. JAUREGUI ADELL, C. MION and J. C. CAVADORE 515-518

Voluntary isocapnic hyperventilation and breathlessness during exercise in normal subjects

R. LANE, A. COCKCROFT and A. GUZ 519-523

Altered platelet lipoxygenase activity in patients with low selenium

A. M. VAN RIJ, C. WADE, I. KIRK, C. THOMSON and M. F. ROBINSON 525-529

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. DÜSING, J. KIPNOWSKI 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. ANASTASSIADES, 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. SRAER 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. SHAPIRA, 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
A. R. DOUGLAS, J. C. MOORE-GILLON, J. W. S. SHELDON and I. R. CAMERON 665-667
- 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