

## CONTENTS

Vol. 67, No. 1

July 1984

### **EDITORIAL REVIEWS**

Plexogenic pulmonary hypertension of unknown origin. What's new?	A. LOCKHART and J. T. REEVES	1-5
The contribution of reflex inhibition to arthrogenous muscle weakness	M. STOKES and A. YOUNG	7-14
Contributors to Medical Science: Sir George Pickering (1904-1982)	W. S. PEART	15-18

Pathogenicity of cationized albumin in the dog: renal and extrarenal effects	P. P. LAMBERT, M. DORIAUX, J. SENNESAEI, R. VANHOLDER and M. LAMMENS-VERSLIJPE	19-33
Plasma clearance, tissue distribution and catabolism of cationized albumins with increasing isoelectric points in the rat	P. BERGMANN, R. KACENELENBOGEN and A. VIZET	35-43
Role of the splanchnic bed in extracting circulating adrenaline and noradrenaline in normal subjects and in patients with cirrhosis of the liver	U. KELLER, P. P. G. GERBER, F. R. BÜHLER and W. STAUFFACHER	45-49
β-Adrenoceptors and responsiveness in cardiac hypertrophy associated with renal hypertension in renovascular hypertensive rats	M. HANI AYOBE and R. C. TARAZI	51-59
The biliary excretion of sulphated and non-sulphated bile acids and bilirubin in patients with external bile drainage	J. S. DOOLEY, C. BARTHOLOMEW, J. A. SUMMERFIELD and B. H. BILLING	61-68
Forearm arterial compliance: the validation of a plethysmographic technique for the measurement of arterial compliance	D. FITCHETT, J. D. BOUTHIER, A. CH. SIMON, J. A. LEVENSON and M. E. SAFAR	69-72
Whole body cellular and collagen nitrogen in healthy and wasted man	H. M. JAMES, J. T. DABEK, D. R. CHETTLE, P. W. DYKES, J. H. FREMLIN, J. HARDWICKE, B. J. THOMAS and D. VARTSKY	73-82
A paradoxical fall in urine dopamine output when patients with essential hypertension are given added dietary salt	J. N. HARVEY, I. F. CASSON, A. D. CLAYDEN, G. F. COPE, C. M. PERKINS and M. R. LEE	83-88
Nocturnal foot blood flow in patients with arterial insufficiency	R. JELNES and K. H. TØNNESSEN	89-95
Post-exercise reduction of blood pressure in hypertensive men is not due to acute impairment of baroreflex function	T. BENNETT, R. G. WILCOX and I. A. MACDONALD	97-103
Effect of intraluminal hydrocortisone on solute and water absorption in the human jejunum	T. CRAKE, A. J. CRISP, M. SHEARING, C. O. RECORD and G. I. SANDLE	105-110
Receptor-cyclase coupling protein in erythrocytes of patients with essential hypertension	Z. FARFEL, A. IAINA, H. ELIAHOU and Z. COHEN	111-115
Inhibition of jejunal water and electrolyte absorption by therapeutic doses of clindamycin in man	R. C. SPILLER, B. E. HIGGINS, P. G. FROST and D. B. A. SILK	117-120
Short-term studies on the use of glycerol as an osmotic agent in continuous ambulatory peritoneal dialysis (CAPD)	A. HEATON, M. K. WARD, D. G. JOHNSTON, D. V. NICHOLSON, K. G. M. M. ALBERTI and D. N. S. KERR	121-130
Oxalate absorption and postprandial urine supersaturation in an experimental human model of absorptive hypercalciuria	S. B. ERICKSON, K. COOPER, A. E. BROADUS, L. H. SMITH, P. G. WERNESS, H. J. BINDER and J. W. DOBBINS	131-138

### **SHORT COMMUNICATION**

The relationship between human adipocyte and monocyte insulin binding	R. TAYLOR, S. J. PROCTOR, O. JAMES, F. CLARK and K. G. M. M. ALBERTI	139-142
---	--	---------

### **CORRESPONDENCE SECTION**

Transport of thyroid hormones	R. P. EKINS	143-144
-------------------------------	-------------	---------

**EDITORIAL REVIEWS**

- Oesophageal motility: recent advances and implications J. N. BLACKWELL and D.O. CASTELL 145-151
- Leukotrienes and the lung A. G. LEITCH 153-159
- 
- Vascular hypersensitivity to noradrenaline: a possible mechanism of hypertension in rats with chronic uraemia R. R. ZIMLICHMAN, C. CHAIMOVITZ, Y. CHAICHENCO, M. GOLIGORSKY, J. RAPOORT and J. KAPLANSKI 161-166
- Supersensitivity of benzodiazepine receptors in hepatic encephalopathy due to fulminant hepatic failure in the rat: reversal by a benzodiazepine antagonist M. BARALDI, M. L. ZENEROLI, E. VENTURA, A. PENNE, G. PINELLI, P. RICCI and M. SANTI 167-175
- Bile salts, hypotension and obstructive jaundice A. BOMZON, J. P. M. FINBERG, D. TOVBIN, S. G. NAIDU and O. S. BETTER 177-183
- The effect of fasting and hypocaloric diets on the functional and metabolic characteristics of rat gastrocnemius muscle D. MCR. RUSSELL, H. L. ATWOOD, J. SCOTT WHITTAKER, T. ITAKURA, P. M. WALKER, D. A. G. MICKLE and K. N. JEEJEBHOY 185-194
- Factors affecting potassium balance during frusemide administration C. S. WILCOX, W. E. MITCH, R. A. KELLY, P. A. FRIEDMAN, P. F. SOUNEY, C. M. RAYMENT, T. W. MEYER and K. L. SKORECKI 195-203
- A micropuncture and renal clearance study in the rat of the urinary excretion of heparin, chondroitin sulphate and metabolic breakdown products of connective tissue proteoglycans D. K. Y. SHUM, C. BAYLIS and J. E. SCOTT 205-212
- Changes in gastric emptying rates with age M. HOROWITZ, G. J. MADDERN, B. E. CHATTERTON, P. J. COLLINS, P. E. HARDING and D. J. C. SHEARMAN 213-218
- The effect of low-dose dopamine infusion on anterior pituitary hormone secretion in normal female subjects J. M. C. CONNELL, S. G. BALL, G C. INGLIS, G. H. BEASTALL and D. L. DAVIES 219-223
- Within-breath modulation of the triggering of extrasystoles in man J. M. PATRICK, Z. GIBSON and S. P. HANLEY 225-227
- The time course during 36 weeks' endurance training of changes in  $\dot{V}O_{2\text{max}}$  and anaerobic threshold as determined with a new computerized method D. A. SMITH and T. V. O'DONNELL 229-236
- Inhibitor binding assay of rat serum angiotensin converting enzyme I. TIKKANEN, F. FYHRQUIST and T. FORSLUND 237-241
- Comparison between short-term renal haemodynamic effects of propranolol and nadolol in essential hypertension: a cross-over study B. J. Z. DANESH, J. BRUNTON and D. J. SUMNER 243-248
- The rate of purine synthesis *de novo* in blood mononuclear cells *in vitro* from patients with familial hyperuricaemic nephropathy K. D. MACDERMOT, J. ALLSOP and R. W. E. WATTS 249-258
- The effects of acute and chronic  $\beta$ -adrenoceptor blockade on the myofibrillar contractile system in the dog heart M. K. DAVIES, P. CUMMINS and W. A. LITTER 259-267
- 
- SHORT COMMUNICATION**
- Ascending brain-stem noradrenergic pathways modulate the renin response to haemorrhage S. L. LIGHTMAN, K. TODD, B. J. EVERITT, M. J. BROWN and R. C. CAUSON 269-272

**EDITORIAL REVIEWS**

- Transferrin and cellular iron exchange S. YOUNG and A. BOMFORD 273-278
- Exercise in therapy and the life of diabetic patients F. W. KEMMER and M. BERGER 279-283
- 
- The temporal distribution of the  $1\alpha,25$ -dihydroxycholecalciferol receptor in the rat jejunal villus S. D. H. CHAN and D. ATKINS 285-290
- Glycogen metabolism in psoriatic epidermis and in regenerating epidermis C. S. HARMON and P. J. R. PHIZACKERLEY 291-298
- The regulatory roles of liver and kidney in cobalamin (vitamin  $B_{12}$ ) metabolism in the rat: the uptake and intracellular binding of cobalamin and the activity of the cobalamin-dependent enzymes in response to varying cobalamin supply J. S. D. SCOTT, A. M. TRESTON, E. P. W. BOWMAN, J. A. OWENS and W. G. E. COOKSLEY 299-306
- Renal excretion of antidiuretic hormone in healthy subjects and patients with renal failure W. PRUSZCZYNSKI, H. CAILLENS, L. DRIEU, L. MOULONGUET-DOLERIS and R. ARDAILLOU 307-312
- Cardiac output, oxygen consumption and renal blood flow in essential hypertension G. M. LONDON, M. E. SAFAR, J. L. BOUTHIER and R. M. GITELMAN 313-319
- Mechanisms of initial blood pressure response to postural change C. BORST, J. F. M. VAN BREDERODE, W. WIELING, G. A. VAN MONFRANS and A. J. DUNNING 321-327
- Glucocorticoid inhibition of mineralocorticoid action in the rat C. J. KENYON, N. A. SACCOCCIO and D. J. MORRIS 329-335
- Isolation of micro- and macro-droplet fractions from needle biopsy specimens of human liver and determination of the subcellular distribution of the accumulating liver lipids in alcoholic fatty liver S. R. CAIRNS and T. J. PETERS 337-345
- Sex-related differences in resting and stimulated plasma noradrenaline and adrenaline L. DAVIDSON, R. VANDONGEN, I. L. ROUSE, L. J. BEILIN and A. TUNNEY 347-352
- The effects of a chronic infusion of arginine vasopressin in salt-restricted, water-deprived man P. J. T. DREW, J. N. BARNES, J. M. P. HOLLY, A. KNIGHT and F. J. GOODWIN 353-358
- Uptake and metabolism of thyroid hormones by the rat foetus in early pregnancy R. J. WOODS, A. K. SINHA and R. P. EKINS 359-363
- Enzymatic activity of renin in plasma of normal and uraemic subjects T. A. KOTCHEN, T. T. GUYENNE, P. CORVOL and J. MENARD 365-368

**EDITORIAL REVIEWS**

Antidepressant binding sites in brain

P. SLATER 369-373

The chlorpropamide alcohol flush

P. G. WILES and D. A. PYKE 375-381

The basal levels of active and inactive plasma renin concentration in infancy and childhood

T. FISELIER, F. DERKX, L. MONNENS, P. VAN MUNSTER, P. PEER and  
M. SCHALEKAMP 383-387

Differences in the effect of mediastinal radiotherapy on lung function and the ventilatory response to exercise

P. W. JONES, A. AL-HILLAWI, J. M. WAKEFIELD, N. MCI. JOHNSON and  
A. M. JELLIFFE 389-396

Sex differences in the metabolism of ethanol and acetaldehyde in normal subjects

M. J. P. ARTHUR, A. LEE and R. WRIGHT 397-401

Atrial natriuretic factor: sodium transport in human erythrocytes

N. C. TRIPPODO, F. E. COLE and A. A. MACPHEE 403-405

Ouabain-resistant, frusemide-sensitive sodium efflux in human lymphocytes: a comparison of normotensive and hypertensive subjects

A. MONTANARI, I. SIMONI, E. SANI, P. SCHIANCHI, A. BORGHETTI and  
A. NOVARINI 407-411Dependence of urinary prostaglandin E<sub>2</sub> excretion on urinary volume rather than solute handling or segmental nephron function in manS. KAOJARERN, P. CHENNAVASIN, A. BURDETTE, W. B. CAMPBELL and  
D. CRAIG BRATER 413-420

Two different types of inactive renin in human plasma: molecular and kinetic properties

Y. IMAMURA, K. HIWADA and T. KOKUBU 421-425

Arterial plasma potassium measured continuously during exercise in man

R. A. F. LINTON, M. LIM, C. B. WOLFF, P. WILMSHURST and D. M. BAND 427-431

Circadian rhythms of serum thyrotrophin and body temperature in euthyroid individuals and their responses to warming

B. P. O'MALLEY, A. RICHARDSON, N. COOK, S. SWART and F. D. ROSENTHAL 433-437  
The lipid-lowering effects of 3-hydroxy-3-methylglutaric acid and bile acid drainage in WHHL rabbitsJ. L. M. VAN NIEKERK, TH. HENDRIKS, J. A. GEVERS LEUVEN, L. HAVEKES  
and H. H. M. DE BOER 439-444

The effect of a 48 h fast on the thermoregulatory responses to graded cooling in man

I. A. MACDONALD, T. BENNETT and R. SAINSBURY 445-452

**SHORT COMMUNICATIONS**

Angiotensin converting enzyme response to hypoxia in man: its role in altitude acclimatization

J. S. MILLEDGE and D. M. CATLEY 453-456

Effect of hyperthyroidism on hepatic lipogenesis in rats: studies *in vivo* and *in vitro*

A. S. AL-SAADI, J. STEWART ORR, A. W. GOODE and M. C. SUGDEN 457-460

Intracellular pH and electrolytes in human skeletal muscle during adrenaline and insulin infusions

K. SAHLIN, J. HENRIKSSON and A. JUHLIN-DANNFELT 461-464

**EDITORIAL REVIEWS**

Control of breathing during sleep

N. J. DOUGLAS 465-471

Vasopressin in cardiovascular control: role of circulating vasopressin

J. F. LIARD 473-481

The role of opioid peptides in the hormonal responses to acute exercise in man

A. GROSSMAN, P. BOULOUX, P. PRICE, P. L. DRURY, K. S. L. LAM, T. TURNER,  
J. THOMAS, G. M. BESSER and J. SUTTON 483-491

Distribution of dead space volume in the human lung

G. TATSIS, K. HORSFIELD and G. CUMMING 493-497

Biliary inter-relationship between phospholipid, bilirubin and taurocholate in the  
anaesthetized rat

J. J. GARCÍA-MARÍN and A. ESTELLER 499-504

Hypophosphataemic osteomalacia and myopathy: studies with nuclear magnetic  
resonance spectroscopy

R. SMITH, R. J. NEWMAN, G. K. RADDA, M. STOKES and A. YOUNG 505-509

Correlation between platelet behaviour and cold-induced vasoconstriction in man,  
and the effects of epoprostenol infusion

A. J. COWLEY, K. STAINER, S. COCKBILL and S. HEPTINSTALL 511-514

Relationship between ventilation and breathlessness during exercise in chronic  
obstructive airways disease is not altered by prevention of hypoxaemia

C. R. SWINBURN, J. M. WAKEFIELD and P. W. JONES 515-519

Hypertension produced by chemical renal medullectomy: evidence for a reno-  
medullary vasodepressor function in the ratD. TAVERNER, R. F. BING, A. FLETCHER, G. RUSSELL, J. D. SWALES and  
H. THURSTON 521-528Tamm-Horsfall glycoprotein release from rat kidney cortex slices *in vitro*

P. K. WIRDNAM and R. D. G. MILNER 529-534

Calmodulin reduces ouabain-sensitive ATPase of cardiac sarcolemmal membranes:  
high reduction in spontaneously hypertensive rats

M. CIRILLO, M. DAVID-DUFILHO and M. A. DEVYNCK 535-540

Uptake of a series of neutral dipeptides including L-alanyl-L-alanine, glycylglycine  
and glycylsarcosine by hamster jejunum *in vitro*

D. M. MATTHEWS and D. BURSTON 541-549

Near-normal glycaemic control does not correct abnormal platelet reactivity in  
diabetes mellitusC. A. JACKSON, M. GREAVES, A. J. M. BOULTON, J. D. WARD and  
F. E. PRESTON 551-555**SHORT COMMUNICATION**

Histamine and secretory otitis media

M. P. COLLINS, K. BAKHSHI, C. A. WAREHAM and M. K. CHURCH 557-560

**EDITORIAL REVIEWS**

The nature of factor VIII

I. R. PEAKE 561-567

Autoimmunity in liver disease

I. G. MCFARLANE 569-578

Effect of acetylsalicylic acid and of indomethacin on diuresis in man: the role of cyclo-oxygenase inhibition

H. VIERHAPPER, J. JÖRG and W. WALDHÄUSL 579-583

Thyroid status in patients after acute myocardial infarction

J. A. FRANKLYN, M. D. GAMMAGE, D. B. RAMSDEN and M. C. SHEPPARD 585-590

Intestinal absorption of calcium in greyhounds: the response to intermittent and continuous administration of human synthetic parathyroid hormone fragment 1-34 (hPTH 1-34)

R. D. PODBESEK, E. B. MAWER, G. D. ZANELLI, J. A. PARSONS and J. REEVE 591-599

Comparison of atrial pacing and the cold pressor test in patients with angina pectoris

H. EMANUELSSON, K. CAIDAH, Å. HJALMARSON, S. HOLMBERG,  
S.-E. SVENSSON, F. WAAGSTEIN and A. WALDENSTRÖM 601-611

Effect of small increments in plasma calcium concentration on the responsiveness of forearm resistance vessels to verapamil in normal subjects

B. F. ROBINSON and R. J. W. PHILLIPS 613-618

Assessment of smoking behaviour and ventilation with cigarettes of differing nicotine yields

M. J. MCBRIDE, A. R. GUYATT, A. J. T. KIRKHAM and G. CUMMING 619-631

Prostacyclin and thromboxane in non-insulin dependent diabetes: the chlorpropamide alcohol flush reaction revisited

C. JOHNSTON, F. CAREY, R. A. FORDER and D. HAWORTH 633-638

Resistance to methylprednisolone in cultures of blood mononuclear cells from glucocorticoid-resistant asthmatic patients

M. C. POZNANSKY, A. C. H. GORDON, J. G. DOUGLAS, A. S. KRAJEWSKI,  
A. H. WYLLIE and I. W. B. GRANT 639-645

Serum alkaline phosphodiesterase I in experimental biliary obstruction in the rat

S. R. SIMPSON, K. RAHMAN and D. BILLINGTON 647-652

**SHORT COMMUNICATION**Dexamethasone inhibits the production of thromboxane B<sub>2</sub> and leukotriene B<sub>4</sub> by human alveolar and peritoneal macrophages in culture

R. W. FULLER, C. R. KELSEY, P. J. COLE, C. T. DOLLERY and J. MACDERMOT 653-656