

# CONTENTS

VOL. 49, No. 1

JULY 1975

Micromethods for the simultaneous measurement of intracellular potassium and corticosterone output of isolated adrenal cortical cells. F. A. O. MENDELSON and R. L. WARREN	1-12
Relation of intracellular K <sup>+</sup> and steroidogenesis in isolated adrenal zona glomerulosa and fasciculata cells. F. A. MENDELSON and C. MACKIE	13-26
Glucose metabolites in blood and adipose tissue of obese diabetic and non-diabetic subjects. M. A. PAGE and D. J. GALTON	27-32
Effect of ethanol on the ventilatory responses to oxygen and carbon dioxide in man. S. A. SAHN, S. LAKSHMINARAYAN, D. J. PIERSON and J. V. WEIL	33-38
Adrenergic responses to sustained handgrip in patients with juvenile-onset-type diabetes mellitus. K. NAZAR, J. TATOŃ, J. CHWALBIŃSKA-MONETA and Z. BRZEZIŃSKA	39-44
Changes in the renal and extrarenal handling of phosphate induced by disodium etidronate (EHDP) in man. R. J. WALTON, R. G. G. RUSSELL and R. SMITH	45-56
The rate of isometric inspiratory pressure development as a measure of responsiveness to carbon dioxide in man. A. W. MATTHEWS and J. B. L. HOWELL	57-68

## SHORT COMMUNICATIONS

Renal kallikrein content of spontaneously hypertensive rats. S. FAVARO, B. BAGGIO, A. ANTONELLO, A. ZEN, G. CANNELLA, S. TODESCO and A. BORSATTI	69-71
Inhibition of renin secretion in the isolated rat kidney by antidiuretic hormone. R. VANDONGEN	73-76
Potassium changes in megaloblastic anaemia. R. HESP, I. CHANARIN and CHRISTINE E. TAIT	77-79

## CORRESPONDENCE SECTION

Variations in allopurinol metabolism by xanthinuric subjects. H. A. SIMMONDS, B. LEVIN and J. S. CAMERON	81-82
--	-------

VOL. 49, No. 2

AUGUST 1975

Effect of cellulose phosphate on calcium and magnesium homeostasis: studies in normal subjects and patients with latent hypoparathyroidism. A. M. PARFITT	83-90
Effect of cellulose phosphate and dietary calcium restriction in primary hyperparathyroidism. A. M. PARFITT	91-98
Liposomes as vehicles for the local release of drugs. A. W. SEGAL, G. GREGORIADIS and C. D. V. BLACK	99-106
Chronic effects of chlorothiazide on reabsorption by the proximal tubule of the rat. E. J. WEINMAN and G. EKNYAN	107-113
Determination of platelet and fibrinogen half-life with [ <sup>75</sup> Se]selenomethionine: studies in normal and in diabetic subjects. J. C. FERGUSON, N. MACKAY, J. A. D. PHILIP and D. J. SUMNER	115-120
Continuous blood sampling: a modified double-lumen catheter. D. B. GARRIOCH	121-124
The actions of bradykinin and eledoisin in the canine isolated kidney: relationships to prostaglandins. J. C. MCGIFF, H. D. ITSKOVITZ and N. A. TERRAGNO	125-131
Total body potassium in children, with particular reference to coeliac disease. K. BODDY, PRISCILLA C. KING and K. CARSWELL	133-137
Effects of progesterone on renal sodium handling in man: relation to aldosterone excretion and plasma renin activity. SUZANNE OPARIL, E. N. EHRLICH and M. D. LINDHEIMER	139-147
Soluble high-molecular-weight E fragments in the plasmin-induced degradation products of cross-linked human fibrin. P. J. GAFFNEY, D. A. LANE and M. BRASHER	149-156

- Effect of liver failure on the response of ventilation and cerebral circulation to carbon dioxide in man and in the goat. N. N. STANLEY, B. G. SALISBURY, L. C. MCHENRY, JR and N. S. CHERNIAK 157-169
- Analytical subcellular fractionation of human granulocytes with reference to the localization of vitamin B<sub>12</sub>-binding proteins. S. P. KANE and T. J. PETERS 171-182

## SHORT COMMUNICATION

- Adrenal weight and catecholamine content in renal and calciferol-induced hypertension in rabbits. JENNIFER E. ANGELL-JAMES and D. A. POWIS 183-186

VOL. 49, No. 3

SEPTEMBER 1975

- Location of aldosterone-producing adenomas by the determination of plasma aldosterone in adrenal vein or renal vein blood. S. FUKUCHI, T. TAKENOUCI, K. NAKAJIMA, H. WATANABE and A. SUGITA 187-192
- Effect of proportional reduction of sodium intake on the adaptive increase in glomerular filtration rate/nephron and potassium and phosphate excretion in chronic renal failure in the rat. C. H. ESPINEL 193-200
- Pituitary-adrenal response to static exercise in man. J. D. FEW, F. J. IMMS and J. S. WEINER 201-206
- Exaggerated phosphaturic response to volume expansion in patients with essential hypertension. C. CHAIMOVITZ, A. SPIERER, H. LEIBOWITZ, S. TUMA and O. S. BETTER 207-211
- Leucocyte sodium transport in uraemia. R. P. S. EDMONDSON, P. J. HILTON, N. F. JONES, J. PATRICK and R. D. THOMAS 213-216
- Airway function in healthy subjects and patients with left heart disease. J. V. COLLINS, T. J. H. CLARK and D. J. BROWN 217-228
- The influence of diet on unconjugated hyperbilirubinaemia in the Gunn rat. J. L. GOLLAN, K. J. HATT and BARBARA H. BILLING 229-235
- Studies on the nature of complexes formed by copper with human alimentary secretions and their influence on copper absorption in the rat. J. L. GOLLAN 237-245
- Intrarenal platelet consumption in the diffuse proliferative nephritis of systemic lupus erythematosus. W. F. CLARK, M. L. LEWIS, J. S. CAMERON and V. PARSONS 247-252
- Effect of lysine acetylsalicylate on biliary lipid secretion in dogs. S. ERLINGER, DOMINIQUE BIENFAIT, RENEE POUPON, MICHELINE DUMONT and M. DUVAL 253-256
- Heterogeneity of hepatic vitamin B<sub>12</sub> in the rat after parenteral cyanocobalamin. W. G. E. COOKSLEY and A. S. TAVILL 257-264
- Leg blood flow and muscle metabolism in occlusive arterial disease of the leg before and after reconstructive surgery. B. PERNOW, B. SALTIN, J. WAHREN, R. CRONSTRAND and S. EKESTRÖM 265-275
- Effect of diazoxide on renal handling of sodium in the rat. L. G. FINE and H. WEBER 277-282

## MEDICAL RESEARCH SOCIETY (Meeting on 11 and 12 July 1975)

- Symposium: Clinical Disorders of Intermediary Carbohydrate Metabolism 1P-3P  
Communications 3P-29P

VOL. 49, No. 4

OCTOBER 1975

- Paradoxical diuresis after vasopressin administration to patients with neurohypophyseal diabetes insipidus treated with chlorpropamide, carbamazepine or clofibrate. A. E. MEINDERS, A. M. VAN LEEUWEN, J. G. G. BORST and V. CEJKA 283-290

Plasma catecholamines, plasma renin activity and plasma aldosterone in tetraplegic man, horizontal and tilted. C. J. MATHIAS, N. J. CHRISTENSEN, J. L. CORBETT, H. L. FRANKEL, T. J. GOODWIN and W. S. PEART	291-299
Increased plasma calcitonin in early acute renal failure. R. ARDAILLOU, M. BEAUFILS, MARIE-PAUL NIVEZ, R. ISAAC, C. MAYAUD and J.-D. SRAER	301-304
Evidence for active transport of tripeptides by hamster jejunum <i>in vitro</i> . JILL M. ADDISON, D. BURSTON, J. W. PAYNE, S. WILKINSON and D. M. MATTHEWS	305-312
A common mechanism for transport of di- and tri-peptides by hamster jejunum <i>in vitro</i> . JILL M. ADDISON, D. BURSTON, JUDITH A. DALRYMPLE, D. M. MATTHEWS, J. W. PAYNE, M. H. SLEISENGER and S. WILKINSON	313-322
Body weight and body water in chronic cor pulmonale. R. H. A. CAMPBELL, HILARY L. BRAND, J. R. COX and P. HOWARD	323-335
Cardiac effects of lead in drinking water of rats. M. R. MOORE, P. A. MEREDITH, A. GOLDBERG, K. E. CARR, P. G. TONER and T. D. V. LAWRIE	337-341
Effect of phenylalanine and its metabolites on the metabolism of leucocytes and lymphocytes. D. M. BRADLEY and R. F. MAHLER	343-351
Effect of intravenous frusemide on plasma renin concentration: suppression of response in hypertension. P. L. PADFIELD, M. E. M. ALLISON, J. J. BROWN, A. F. LEVER, R. G. LUKE, C. C. ROBERTSON, J. I. S. ROBERTSON and M. TREE	353-358
Defective membrane systems in dystrophic skeletal muscle of the UM-X7.1 strain of genetically myopathic hamster. N. S. DHALLA, A. SINGH, S. L. LEE, M. B. ANAND, A. M. BERNATSKY and G. JASMIN	359-368

VOL. 49, No. 5

NOVEMBER 1975

Epitaxial relationships in urolithiasis: the calcium oxalate monohydrate-hydroxyapatite system. J. L. MEYER, J. H. BERGERT and L. H. SMITH	369-374
Anaerobic glycolysis in normal human erythrocytes incubated <i>in vitro</i> with sodium salicylate. N. WORATHUMRONG and A. J. GRIMES	375-384
The effect of external potassium concentration on leucocyte cation transport <i>in vitro</i> . P. J. HILTON, R. P. S. EDMONDSON, R. D. THOMAS and J. PATRICK	385-390
The effects of a diphosphonate and dietary calcium on the metabolism of vitamin D <sub>3</sub> (cholecalciferol) in the chick. CAROL M. TAYLOR, E. BARBARA MAWER and A. REEVE	391-400
A study of relations between the absorption of amino acids, dipeptides, water and electrolytes in the normal human jejunum. D. B. A. SILK, P. D. FAIRCLOUGH, NICOLA J. PARK, ANNETTE E. LANE, JOAN P. W. WEBB, M. L. CLARK and A. M. DAWSON	401-408
Effects of pent-4-enoic acid on renal free water, bicarbonate and phosphate excretion in the dog. J. G. KLEINMAN and M. L. LEVIN	409-417
Observations on the passage of apoproteins from plasma lipoproteins into peripheral lymph in two men. D. REICHL, A. POSTIGLIONE, N. B. MYANT, J. J. PFLUG and M. PRESS	419-426
Respiratory responses to simultaneous static and rhythmic exercises in humans. R. L. WILEY and A. R. LIND	427-432
A comparison of natriuresis after oral and intravenous sodium loading in sodium-depleted rabbits: evidence for a gastrointestinal or portal monitor of sodium intake. R. J. LENNANE, W. S. PEART, R. M. CAREY and J. SHAW	433-436
A comparison of natriuresis after oral and intravenous sodium loading in sodium-depleted man: evidence for a gastrointestinal or portal monitor of sodium intake. R. J. LENNANE, R. M. CAREY, T. J. GOODWIN and W. S. PEART	437-440
Urinary excretion of 17-oxosteroids in hereditary coproporphyrria. J. W. PAXTON, M. R. MOORE, A. D. BEATTIE and A. GOLDBERG	441-444

Effects of metiamide on the human stomach. B. THJODLEIFSSON and K. G. WORMSLEY	445-458
The release of renal prostaglandins during saline infusion in normal and hypertensive subjects. N. PAPANICOLAOU, M. SAFAR, A. HORNYCH, F. FONTALIRAN, Y. WEISS, J. BARIETY and P. MILLIEZ	459-463
The role of baroreceptors and chemoreceptors in the regulation of the cerebral circulation. I. M. JAMES and LINDSAY A. MACDONELL	465-471
Disturbances in glucose metabolism in patients with liver damage due to paracetamol overdose. C. O. RECORD, R. A. CHASE, K. G. M. M. ALBERTI and R. WILLIAMS	473-479
The direct effect of calcium on the hyperparathyroidism of chronic renal failure. M. KAYE	481-484
Urinary noradrenaline excretion and renal function in normal and hypertensive 50-year-old men. G. BERGLUND, G. TIBBLIN and M. AURELL	485-493
Hepatic glutathione depletion and impaired bromosulphthalein clearance early after paracetamol overdose in man and the rat. M. DAVIS, G. IDEO, N. G. HARRISON and R. WILLIAMS	495-502
SHORT COMMUNICATIONS	
Arterial catecholamines in hypoxic exercise in man. L. J. CLANCY, J. A. J. H. CRITCHLEY, A. G. LEITCH, B. J. KIRBY, A. UNGAR and D. C. FLENLEY	503-506
The effect of indomethacin and prostaglandin (PGE <sub>2</sub> ) on renal failure due to glycerol in saline-loaded rats. N. PAPANICOLAOU, P. CALLARD, J. BARIETY and P. MILLIEZ	507-510
Plasma catecholamines and renin activity in response to exercise in patients with essential hypertension. J. CHODAKOWSKA, K. NAZAR, B. WOCIAL, M. JARECKI and B. SKÓRKA	511-514
The effect of reduction in blood volume on plasma renin activity in man. B. HESSE, I. NIELSEN and J. F. HANSEN	515-517
The effect of frusemide on water and electrolyte absorption from the human jejunum. J. F. MACKENZIE, K. M. COCHRAN and R. I. RUSSELL	519-521
A study of intraluminal peptide hydrolase activity in the rat. D. B. A. SILK and Y. S. KIM	523-526

VOL. 49, No. 6

DECEMBER 1975

The influence of potassium on the renal vasculature and the adrenal gland, and their responsiveness to angiotensin II in normal man. N. K. HOLLENBERG, G. WILLIAMS, B. BURGER and I. HOOSHMAND	527-534
Potassium depletion induced by vasopressin and overhydration in the rabbit. M. A. BARRACLOUGH	535-541
I-cell disease (mucopolipidosis II): resolution of <i>N</i> -acetyl- $\beta$ -D-glucosaminidase and $\alpha$ -L-fucosidase components by DEAE-cellulose chromatography. R. B. ELLIS, P. WILLCOX and A. D. PATRICK	543-550
The early effects of intravenous frusemide on central haemodynamics, venous tone and plasma renin activity. B. HESSE, I. NIELSEN and H. LUND-JACOBSEN	551-555
Systolic blood pressure variation during the first 6 days of life. M. DE SWIET, R. FANCOURT and J. PETO	557-561
Urinary concentration and dilution after unilateral nephrectomy in the rat. D. S. EMMANOUEL, M. D. LINDHEIMER and A. I. KATZ	563-572
The meaning of dopamine $\beta$ -hydroxylase in essential hypertension. J. M. ALEXANDRE, G. M. LONDON, C. CHEVILLARD, P. LEMAIRE, M. E. SAFAR and Y. WEISS	573-579
Measurement of muscle protein synthetic rate from serial muscle biopsies and total body protein turnover in man by continuous intravenous infusion of L-[ $\alpha$ - <sup>15</sup> N]lysine. D. HALLIDAY and R. O. MCKERAN	581-590
The nylon column dye test: a possible screening test of phagocyte function. A. W. SEGAL and T. J. PETERS	591-596

Seasonal variations in the composition of urine in relation to calcium stone-formation. W. G. ROBERTSON, M. PEACOCK, R. W. MARSHALL, R. SPEED and B. E. C. NORDIN	597-602
Relation between hepatic alcohol dehydrogenase activity and the ascorbic acid in leucocytes of patients with liver disease. J. DOW, N. KRASNER and A. GOLDBERG	603-608
SHORT COMMUNICATIONS	
The stimulation of renin secretion by non-vasoconstrictor infusions of adrenaline and noradrenaline in the isolated rat kidney. R. VANDONGEN and DIANNE M. GREENWOOD	609-612
Plasma uric acid concentration related to the urinary excretion of aldosterone and of electrolytes in normal subjects. L. E. RAMSAY, R. M. AUTY, C. E. HORTH, D. LEVINE, J. R. SHELTON and R. A. BRANCH	613-616
The relationship between dietary fat composition and plasma cholesterol esterification in man. J. P. MILLER, A. CHAIT and B. LEWIS	617-620
Plasma squalene as an index of cholesterol synthesis. P. J. NESTEL and B. KUDCHODKAR	621-624
Plasma prostaglandin E during neurogenic hypertension in tetraplegic man. C. J. MATHIAS, K. HILLIER, H. L. FRANKEL and J. M. K. SPALDING	625-628
Variations in thyroid function and sleep in healthy young men. M. W. JOHNS, J. P. MASTERTON, J. E. PADDLE-LEDINEK, Y. C. PATEL, D. WINIKOFF and M. MALINEK	629-632