

Maintenance requirement and adipocyte count of rats from large and small litters, at the same weight. By D. S. MILLER and A. WISE ... 105A

Plasma lipids and lipoproteins of some herbivorous mammals. By W. M. F. LEAT, CHRISTINE A. NORTHPROP and D. M. JONES ... 105A

Influence of dietary fat intake of the mother on composition of body fat of newborn guinea-pigs. By DIANA E. PAVEY and ELSIE M. WIDDOWSON ... 107A

Intake, digestion and production by dairy cows given protected lipids in early lactation. By J. A. BINES, J. E. STORRY and P. E. BRUMBY ... 108A

Effect of dietary sunflower-seed oil on the fatty acid composition and desaturase activity of tissues from congenitally obese rats. By K. W. J. WAHLE and J. D. RADCLIFFE ... 109A

The effect of altering dilution rate on the pattern of fermentation in the rumen. By D. J. THOMSON, D. E. BEEVER, D. C. MUNDELL, M. L. ELDERFIELD and D. G. HARRISON ... 111A

Rumen microbial population of lambs given mineral-supplemented diets. By M. J. LATHAM and M. ELISABETH SHARPE ... 113A

The body density and total body potassium content of sixty-eight men and women of different ages and a variety of physiques. By J. WOMERSLEY, K. BODDY and J. V. G. A. DURNIN ... 114A

The Ethiopian famine of 1973-4. 1. Wollo province. By J. SEAMAN and J. F. J. HOLT ... 114A

The Ethiopian famine of 1973-4. 2. Harerge province. By J. F. J. HOLT, J. SEAMAN and J. P. W. RIVERS ... 115A

The effect of breast-feeding and artificial feeding on body-weights, skinfold measurements and food intakes of forty-two primiparous women. By D. J. NAISMITH and CAROLYN D. RITCHIE ... 116A

A comparison of growth in wholly breast-fed infants and in artificially fed infants. By CAROLYN D. RITCHIE and D. J. NAISMITH ... 118A

Nutrient intake of students in two different types of residence. By D. L. HAGGER ... 119A

Binding of calcium by dietary fibre: its relationship to unsubstituted uronic acids. By W. J. BRANCH, D. A. T. SOUTHGATE and W. P. T. JAMES ... 120A

The possible effect of L-leucine on the nicotinic acid requirement of the rat. By JENNIFER A. MANSON ... 120A

The effects of some antioxidants on lipofuscin accumulation in rat brain. By D. N. RUDRA, J. W. T. DICKERSON, R. WALKER and J. CHAYEN ... 122A

The effect of fenfluramine on blood glucose and ascorbic acid in normal subjects. By MAURICE GREENE and C. W. M. WILSON ... 123A

The effect of dietary sucrose on lipid metabolism in Dutch belted rabbits (*Oryctolagus cuniculus*). By NANCY ANN WORCESTER, K. R. BRUCKDORFER and JOHN YUDKIN ... 124A

The effect of dietary sucrose and hydrogenated coconut oil on atherosclerosis in Dutch belted rabbits (*Oryctolagus cuniculus*). By NANCY ANN WORCESTER, K. R. BRUCKDORFER and JOHN YUDKIN ... 125A

## INDEX OF AUTHORS

Beever, D. E. ... 111A	Harrison, D. G. ... 111A	Robinson, D. S. ... 211
Bines, J. A. ... 108A	Harrison, F. A. ... 203	Rudra, D. N. ... 122A
Blaxter, K. L. ... 145, 159	Hems, D. A. ... 225	
Boddy, K. ... 114A	Holt, J. F. J. ... 167, 114A, 115A	Seaman, J. ... 114A, 115A
Boerma, A. H. ... 146		Sharpe, M. E. ... 113A
Branch, W. J. ... 120A	James, W. P. T. ... 120A	Shepherd, N. D. ... 100A
Bruckdorfer, K. R. ... 124A, 125A	Jones, D. M. ... 105A	Siddle, K. ... 233
Brumby, P. E. ... 108A	Kapsiotis, G. D. ... 195	Sinclair, A. J. ... 287
Chayen, J. ... 122A	Latham, M. J. ... 113A	Sissons, J. W. ... 102A
Chesters, J. K. ... 103A	Leat, W. M. F. ... 203, 105A	Smith, J. S. ... 101A
Clifton-Bligh, P. ... 265	Lindsay, D. B. ... 241	Smith, R. H. ... 102A
Cryer, A. ... 211	Livingstone, R. M. ... 99A	Southgate, D. A. T. ... 120A
		Storry, J. E. ... 108A
Davies, P. ... 211	McCance, R. A. ... 161	Taylor, T. G. ... 100A
Denton, R. M. ... 217	Manson, J. A. ... 120A	Thomson, D. J. ... 111A
Dewey, P. J. S. ... 101A	Mennie, I. ... 99A	van Dorp, D. A. ... 279
Dickerson, J. W. T. ... 122A	Miller, D. S. ... 167, 105A	
Durnin, J. V. G. A. ... 114A	Mundell, D. C. ... 111A	Wahle, K. W. J. ... 257, 109A
	Myant, N. B. ... 271	Wainman, F. W. ... 101A
Elderfield, M. ... 111A	Naismith, D. J. ... 116A, 118A	Walker, R. ... 122A
	Northrop, C. A. ... 105A	Whithead, R. G. ... 187
Fuller, M. F. ... 99A		Widdowson, E. M. ... 107A
	Pavey, D. E. ... 107A	Wilson, C. W. M. ... 123A
Galton, D. J. ... 265	Pirie, N. W. ... 181	Wilton, D. C. ... 100A
Garton, G. A. ... 257	Radcliffe, J. D. ... 109A	Wise, A. ... 105A
Gilbert, C. H. ... 265	Reckless, J. P. D. ... 265	Womersley, J. ... 114A
Greene, M. ... 123A	Ritchie, C. D. ... 116A, 118A	Worcester, N. A. ... 124A, 125A
	Rivers, J. P. W. ... 115A	
Hagger, D. L. ... 119A		York, D. A. ... 249
Hales, C. N. ... 233		Yudkin, J. ... 124A, 125A
Halse, M. ... 173		

# Proceedings of the Nutrition Society

CONTENTS OF VOL. 34, No. 3, DECEMBER 1975

## SYMPOSIUM PROCEEDINGS

*Boyd Orr Memorial Lecture*  
King's College, University of Aberdeen  
10 APRIL 1975

Chairman: DR K. L. BLAXTER, Rowett Research Institute, Bucksburn, Aberdeen

	PAGE
Introduction. By K. L. BLAXTER	145
The 30 years' war against world hunger. By A. H. BOERMA	146

*Two Hundred and Seventy-eighth Scientific Meeting*  
*One Hundred and Eleventh Scottish Meeting*  
King's College, University of Aberdeen  
11 APRIL 1975

FAMINE\*

Chairman: DR K. L. BLAXTER, Rowett Research Institute, Bucksburn, Aberdeen

Chairman's opening remarks. By K. L. BLAXTER	159
Famines of history and of today. By R. A. McCANCE	161
The Ethiopian famine. By D. S. MILLER and J. F. J. HOLT	167
Food-production and food-supply programmes in India. By MICHAEL HALSE	173
Some obstacles to eliminating famine. By N. W. PIRIE	181
UK contributions to famine relief. By R. G. WHITEHEAD	187
An international programme for famine relief. By G. D. KAPSIOTIS	195

*Two Hundred and Eightieth Scientific Meeting*  
Middlesex Hospital Medical School, London W1  
22 MAY 1975

COLLOQUIUM ON 'FOOD AND NUTRITION RESEARCH'

Chairman: DR K. L. BLAXTER, Rowett Research Institute, Bucksburn, Aberdeen

Report of colloquium	201
----------------------	-----

*Two Hundred and Eighty-first Scientific Meeting*  
Medical and Biological Sciences Building, University of Southampton  
8 AND 9 JULY

LIPID METABOLISM AND ITS CONTROL\*

Chairman: PROFESSOR K. A. MUNDAY, Department of Physiology and Biochemistry, University of Southampton

Digestion and absorption of lipids in non-ruminant and ruminant animals: a comparison. By F. A. HARRISON and W. M. F. LEAT	203
The role of clearing-factor lipase (lipoprotein lipase) in the transport of plasma triglycerides. By D. S. ROBINSON, A. CRYER and P. DAVIES	211

Chairman: PROFESSOR M. AKHTAR, Department of Physiology and Biochemistry, University of Southampton  
Hormonal regulation of fatty acid synthesis in adipose tissue through changes in the activities of pyruvate dehydrogenase (EC 1.2.4.1) and acetyl-CoA carboxylase (EC 6.4.1.2). By R. M. DENTON

Control of hepatic glyceride synthesis. By D. A. HEMS	217
Hormonal control of adipose tissue lipolysis. By K. SIDDLE and C. N. HALES	225
Fatty acids as energy sources. By D. B. LINDSAY	233
	241

Chairman: DR E. A. NEWSHOLME, Department of Biochemistry, University of Oxford

Lipid metabolism in genetic models of obesity. By D. A. YORK	249
Effects of diet on fatty acid metabolism. By G. A. GARTON and K. W. J. WAHLE	257
The control of fatty acid metabolism in adult diabetes. By D. J. GALTON, J. P. D. RECKLESS, P. CLIFTON-BLIGH and C. H. GILBERT	265
The influence of some dietary factors on cholesterol metabolism. By N. B. MYANT	271

Chairman: PROFESSOR H. M. SINCLAIR, International Institute of Human Nutrition, Sutton Courtenay, Abingdon

Essential fatty acid metabolism. By D. A. VAN DORP	279
Long-chain polyunsaturated fatty acids in the mammalian brain. By A. J. SINCLAIR	287

## ABSTRACTS OF COMMUNICATIONS

*Two Hundred and Seventy-ninth Scientific Meeting*  
Royal Society of Medicine, London  
16 MAY 1975

Responses of growing pigs to combinations of essential amino acids. By M. F. FULLER, R. M. LIVINGSTONE and I. MENNIE	99A
An improved method for the determination of the biological availability of lysine in proteins using the micro-organism <i>Tetrahymena pyriformis</i> . By N. D. SHEPHERD, T. G. TAYLOR and D. C. WILTON	100A
The energy value to sheep of a mixed grass silage. By J. S. SMITH, F. W. WAINMAN and P. J. S. DEWEY	101A
Field-bean ( <i>Vicia faba</i> L.) protein in feeds for preruminant calves. By J. W. SISSONS and R. H. SMITH	102A
Food intake control in zinc-deficient rats of the Zucker-Zucker strain. By J. K. CHESTERS	103A

[Continued on p. iii of wrapper]

©The Nutrition Society, 1975

CAMBRIDGE UNIVERSITY PRESS  
Bentley House, 200 Euston Road, London NW1 2DB  
32 East 57th Street, New York, N.Y. 10022

\*Copies of this complete symposium may be obtained from:  
Professor T. G. Taylor (The Nutrition Society) c/o Dept of  
Physiology & Biochemistry, Medical & Biological Sciences  
Building, The University, Southampton SO9 3TU.  
The cost is £1.50 (\$2.50). Remittance should be sent with  
the order. Cheques or Postal Orders should be made  
payable to 'The Nutrition Society'.