The Proceedings of the Nutrition Society, published by Cambridge University Press, in part record meetings of the Symposium type, at which experts in a particular field are invited by Council to make contributions on specific parts of it and at which general discussion follows these invited contributions. The meetings also include sessions at which papers are communicated by members and others on original work. It is proposed at present to publish summaries of the papers read at each meeting, each communication being recorded in the Society's *Proceedings* by means of an abstract not exceeding in length 400 words or the equivalent space in print. The *Proceedings* are published three times a year.

The subscription (excluding VAT) to the *Proceedings* is £117.00 net (US \$229.00 in USA, Canada and Mexico). Single issues are £41.00 (US \$79.00 in the USA, Canada and Mexico) each; postage extra.

Copying. This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of the US copyright law) subject to payment to C.C.C. of the per-copy fee of \$5.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0007–1145/94 \$5.00 + .00. Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, Pennsylvania 19104, USA, is authorized to supply single copies of separate articles for private use only.

For all other use, permission should be sought from Cambridge or the American Branch of Cambridge University Press.

## INDEX OF AUTHORS

Abu Manneh, M. K.	799	Girard, C. L.	911	Petterson, D. S.	865
Allan, G. F.	815, 831			Pine, A. P.	815, 831
Ashton, J.	799	Haggarty, P.	799		
		Hancock, K. R.	855	Reeds, P. J.	845
Barry, T. N.	923	THE CHARGE SERVE ACTOR AS A SUCCESSION OF THE CONTROL OF THE CONTR		Richardson, F. D.	795
Blakely, B. R.	899	Jackson, E. M.	845		
Bories, P. N.	937	Jessop, N. S.	815, 831	Sandström, B.	865
ore stampage you electrical		Contractive to the contractive	0.000	Shelton, I. D.	923
Campillo, B.	937	Lau, J.	883	Shi, B.	873
Cederblad, A.	865	Lee, W. T. K.	883	Southgate, D. A. T.	795
See Consumer Such		Leung, S. S. F.	883	Spallholz, J. E.	873
Davidson, L.	799	Leung, D. M. Y.	883		
Davis, T. A.	845			Tsang, H. S. Y.	883
Duncan, G.	799	Masarei, J. R. L.	883		
		Matte, J. J.	911	Waghorn, G. C.	923
Eagles, J.	883	McNeill, G.	799	Wang, S. H.	883
Ealing, P. M.	855	Milne, E.	799	Wang, Y.	923
				White, D. W. R.	855
Fairweather-Tait, S. J.	883	Nguyen, H. V.	845		
Fioretto, M. L.	845			Xu, Y. C.	883
Fox, T.	883	Oldham, J. D.	815, 831		
ST PERMIT		Omara, F. O.	899	Zeng, W. P.	883
Garcia-Bravo, R.	845	I working the control of the control		- Control Control Control	

VOL. 72 NO. 6 DECEMBER 1994

## CONTENTS

Directions from a reader. D. A. T. Southgate The needs of readers. F. D. Richardson	795 795–797
Exercise and energy requirements  The influence of exercise on the energy requirements of adult males in the UK.  P. Haggarty, G. McNeill, M. K. Abu Manneh, L. Davidson, E. Milne, G. Duncan & J. Ashton	799–813
Maternal protein reserves and lactation  Maternal protein reserves and their influence on lactational performance in rats  3. The effects of dietary protein restriction and stage of lactation on milk composition. A. P. Pine, N. S. Jessop & J. D. Oldham  Maternal protein reserves and their influence on lactational performance in rats  4. Tissue protein synthesis and turnover associated with mobilization of maternal protein. A. P. Pine, N. S. Jessop, G. F. Allan & J. D. Oldham	815–830 831–844
Stage of lactation and amino acid composition of milks  Amino acid composition of the milk of some mammalian species changes with stage of lactation. Teresa A. Davis, Hanh V. Nguyen, Roselina Garcia-Bravo, Marta L. Fiorotto, Evelyn M. Jackson & Peter J. Reeds	845–853
Sulphur-rich proteins which resist degradation in the rumen Identification of sulphur-rich proteins which resist rumen degradation and are hydrolysed rapidly by intestinal proteases. Kerrie R. Hancock, Paul M. Ealing & Derek W. R. White	855–863
Studies of mineral absorption and bioavailability  Absorption of zinc from lupin (Lupinus angustifolius)-based foods. D. S. Petterson, B. Sandstrom & Å. Cederblad  Selenium from beef is highly bioavailable as assessed by liver glutathione peroxidase (EC 1.11.1.9) activity and tissue selenium. Bing Shi & Julian E.	865 <u>–</u> 871
Spallholz  True fractional calcium absorption in Chinese children measured with stable isotopes (42Ca and 44Ca) Warren T. K. Lee, Sophie S. F. Leung, Susan J. Fairweather-Tait, Dora M. Y. Leung, Heidi S. Y. Tsang, John Eagles, Tom Fox, S. H. Wang, Y. C. Xu, W. P. Zeng, Joseph Lau & J. R. L. Masarei	873–881 883–897
Iron status and cell-mediated immunity The effects of iron deficiency and iron overload on cell-mediated immunity in the mouse. Felix O. Omara & Barry R. Blakley	899–909

continued on page facing inside back cover

For Index of Authors see inside back cover



