Vol. 52

# **Index of Subjects**

Numerals followed by the letter A refer to Abstracts of Communications read at Meetings for Original Communications of The Nutrition Society

Communications of The Nutrition Society	
Acetate metabolism	Albumin
The influence of acetate and nutrient balance on ouabain-sensitive respiration in ovine liver	Increased albumin synthesis in healthy volunteers with feeding 52, 91A, 1993
52, 56A, 1993  Enumeration of bacteria forming acetate from H <sub>2</sub> and CO <sub>2</sub> and other H <sub>2</sub> -utilizing micro-	Short-term parenteral feeding does not mitigate the decrease in albumin synthesis rates induced by interleukin-1β or turpentine injec-
organisms from the digestive tract of animals	tion in the rat 52, 231A, 1993
and man <b>52</b> , 117A, 1993	Non-linear incorporation of tracer into non-
Acid-base status	albumin plasma protein as a result of a flooding dose of leucine 52, 250A, 1993
Blood acid-base and urinary excretion during chronic ingestion of a drink with acute alkalizing properties 52, 265A, 1993	Alcoholics  Effect of oral administration of an oil enriched in
The effect of consuming the sodium salts of two	γ-linolenic acid in platelet aggregation and
weak organic acids for 5 consecutive days on	lipid composition in alcoholic patients during
acid-base status in man 52, 266A, 1993	withdrawal 52, 196A, 1993
Activity level	Allergy
Effect of chronic energy deprivation on 24 h	Nutrient intakes in a group of self-reported milk
activity of lean and obese mice 52, 33A, 1993	allergy subjects. <b>52,</b> 110A, 1993
The effect of season and leisure activity on the	Does a maternal milk-free diet prevent allergy in
energy expenditure of adult males	the 'at-risk' infant? 52, 217A, 1993
<b>52</b> , 94A, 1993	Aluminium
Adaptation to diet	The bioavailability and metabolism of aluminium compounds in man 52, 231, 1993
Adaptation to a diet by cats and dogs: implications for protocol design	The chemistry of aluminium in the gastro-
52, 296A, 1993	intestinal lumen and its uptake and absorption
Adipose tissue	<b>52,</b> 241, 1993
Adipose tissue profiles in inflammatory bowel	Recent research on the causes of Alzheimer's
disease 52, 5A, 1993	disease <b>52,</b> 255, 1993
Perirenal adipose tissue development in	Alzheimer's disease
artificially- and ewe-reared lambs over the first	The bioavailability and metabolism of aluminium
month of life <b>52</b> , 104A, 1993	compounds in man 52, 231, 1993
Adolescence	Recent research on the causes of Alzheimer's disease 52, 255, 1993
Lunchtime dietary choice of young teenagers in Tayside 52, 40A, 1993	disease <b>52,</b> 255, 1993 <b>Amino acids</b>
Tayside 52, 40A, 1993 Adrenaline	The metabolism of amino acids in mice infected
The metabolic and cardiovascular responses to	with Schistosoma mansoni 52, 7A, 1993
infused adrenaline in lean and obese subjects	Nutritional value of lentil and effect of cooking
<b>52,</b> 304A, 1993	on free amino acid tissue concentrations of
African foods	growing rats <b>52,</b> 132A, 1993
An investigation of the effects of two indigenous	Amino acid losses in ileostomy fluid on a protein-
African foods, Detarium microcarpum and	free diet <b>52,</b> 147A, 1993
Cissus rotundifolia on rat plasma cholesterol	Contribution of intestinal microflora to lysine
levels 52, 372A, 1993	requirements in non-ruminants
The effect of two Nigerian feeds containing non- starch polysaccharides on postprandial blood	52, 153A, 1993 Adult and old rats retain sensitivity for
glucose and insulin levels in healthy subjects	stimulation of muscle protein synthesis by
52, 377A, 1993	amino acid 52, 170A, 1993
Ageing	Effect of dietary methionine concentration on
Digestibility in Labrador Retrievers during	plasma free amino acid levels in genetically
growth <b>52</b> , 294A, 1993	lean and fat chickens 52, 173A, 1993
Exposure to choice feeding at different ages and	Net absorption of low molecular weight peptides
the subsequent choice of broiler chickens	by the mesenteric- and portal-drained viscera
<b>52,</b> 354A, 1993	of steers 52, 190A, 1993
Aid programmes  Aid programmes for malnutrition and the role of	Nutritive value of goat's and cow's milk crude protein and ileal digestibility of their amino
Aid programmes for malnutrition and the role of the nutritionist 52, 175, 1993	acids by the growing pig 52, 204A, 1993

New analytical techniques and considerations for measuring <sup>13</sup>C-labelled amino acids at submicro molar levels **52,** 303A, 1993

Sulphur amino acids ameliorate lung inflammation in response to tumour necrosis factor  $\alpha$  in rats fed low-protein diets 52, 339A, 1993

### β-Amyloid precursor protein

Recent research on the causes of Alzheimer's disease 52, 255, 1993

### Anorexia

496

Causes and consequences of dieting and anorexia **52,** 211, 1993

Food behaviour evolution in anorexia nervosa

**52,** 34A, 1993

Exercise-induced anorexia in lean men

**52,** 382A, 1993

### Anthelmintic treatment

A follow-up study to investigate an increase in Giardia lamblia infection among Bangladeshi children receiving regular anthelmintic treatment 52, 8A, 1993

#### Anthropometry

The intensity of infection with Ascaris lumbricoides and the anthropometric status of children in Bangladesh 52, 9A, 1993

Supplementing meals with leaf concentrate in Sri Lankan nursery schools: impact on anthropometric status 52, 99A, 1993

Anthropometric measurements in elderly orthopaedic patients: 6-month follow-up of high- and low-nutritional risk groups

**52,** 108A, 1993

The diet, physical activity patterns and anthropometry of a group of free-living elderly people 52, 344A, 1993

Muscle thickness as an index of fat-free mass 52, 345A, 1993

### Antibody

Measurement of postprandial apolipoprotein B-48 using a novel specific antibody

52, 76A, 1993

Antigen specificity and cross-reactivity of fifteen monoclonal antibodies against porcine pancreatic α-amylase II, and its AB and C domains 52, 143A, 1993

Measurement of apolipoprotein B-48 with a novel specific antibody reveals two postprandial peaks of intestinal origin 52, 289A, 1993

#### Antigen

Antigenic soya-bean protein digestion in the dairy calf at weaning 52, 136A, 1993

Antigen specificity and cross-reactivity of fifteen monoclonal antibodies against porcine pancreatic α-amylase II, and its AB and C domains 52, 143A, 1993

### **Anti-nutritional factors**

Use of chemical treatments to reduce antinutritional effects of tannins of salseed (Shorea robusta) meal in diets of broiler chickens

**52,** 138A, 1993

# Antioxidants

Effects of dietary lactose and sucrose on antioxidant status in copper-deficient diabetic rats 52, 26A, 1993 Antioxidant protection of the anoxic-reoxygenated heart 52, 62A, 1993

The validation of a food frequency and amount questionnaire for assessing dietary antioxidant intakes amongst older adults 52, 63A, 1993

Serum antioxidants and malondialdehyde in homocysteinaemics with coronary heart disease, non-homocysteinaemics with coronary heart disease, and normal control subjects 52, 73A, 1993

Cigarette smoking and intake of antioxidant vitamins: a dose-type response effect

**52,** 113A, 1993

Is the antioxidant activity of premature baby plasma modulated by plasma ascorbic acid concentrations? 52, 313A, 1993

Antioxidant status during liver transplantation 52, 316A, 1993

Relationship between antioxidant vitamins and tumour necrosis factor (TNF) in smokers and non-smokers 52, 338A, 1993

### Apolipoprotein

Measurement of postprandial apolipoprotein B-48 using a novel specific antibody

**52,** 76A, 1993

Measurement of apolipoprotein B-48 with a novel specific antibody reveals two postprandial peaks of intestinal origin 52, 289A, 1993

### Apparent precaecal digestibility

Effect of Virginiamycin on the precaecal apparent digestibility of the major nutrients comparing a diet with high and low precaecal digestibility in pigs 52, 212A, 1993

# Appetite

Energy partitioning, tissue growth and appetite control **52,** 69, 1993

Neuropeptide Y is increased in appetiteregulating hypothalamic areas of lactating rats 52, 218A, 1993

The effects of fibre in the breakfast upon shortterm appetite control: a comparison of soluble and insoluble fibre 52, 381A, 1993

### Arachidonic acid

Esterification of oleic and arachidonic acids in mouse jejunum 52, 161A, 1993

#### L-Arginine

The immunological and metabolic effects of L-arginine in human cancer 52, 387, 1993

### Ascariasis

The intensity of infection with Ascaris lumbricoides and the anthropometric status of children in Bangladesh 52, 9A, 1993

#### Ascorbic acid

Effect of changes in environmental temperature on self-selection of ascorbic acid in coloured feeds by broiler chicks 52, 29A, 1993

Relationships between plasma, gastric tissue and gastric juice ascorbic acid levels in subjects with and without gastritis 52, 61A, 1993

Plasma ascorbic acid and dehydroascorbic acid levels in very low-birth weight infants

52, 77A, 1993

Comparison of energy, ascorbic acid and fibre estimates by a food-frequency questionnaire and a 10 d weighed record in smokers

52, 112A, 1993

Is the antioxidant activity of premature baby plasma modulated by plasma ascorbic acid concentrations? 52, 313A, 1993

### Bacillus stearothermophilus

The potential value of *Bacillus stearothermo*philus spores as a gut transit time marker

52, 293A, 1993

#### **Baked beans**

Effect of baked beans on steroid metabolism of hypercholesterolaemic pigs 52, 164A, 1993

#### Behaviour

'Malnutrition, Learning and Behavior': 25 years on from the MIT Symposium 52, 189, 1993 Some aspects of the long-term effects of malnutrition on the behaviour of children in

the Third World 52, 201, 1993 The behavioural effects of undernutrition in confined farm animals 52, 219, 1993

Behaviour of stunted children and the relationship to development 52, 36A, 1993

#### Beikost

Maintaining the patterns of human milk-induced gut microflora after supplementary feeding of beikost 52, 121A, 1993

#### Bifidobacteria

Establishment of *Bifidobacterium bifidum* in the intestine of human neonates: relationship with the bifidus-factors found in the stools

52, 120A, 1993

Growth of bifidobacteria in continuous culture

52, 125A, 1993

#### Bioelectrical impedance analysis

Estimation of the mass and distribution of body water in surgical patients by multiplefrequency bioelectrical impedance analysis

52, 248A, 1993

The changes in body weight and in body composition, estimated using bioelectrical impedance analysis over 72 h of fasting; comparison with estimates based on energy expenditure measured by indirect calorimetry

52, 251A, 1993

Different predictions of body fat from the same whole-body bio-electrical impedance measurement 52, 347A, 1993

#### **Biotin**

The effect of biotin deficiency on the fatty acid composition of porcine tissues 52, 86A, 1993

### Birth weight

Risk factors for intra-uterine growth retardation in Campinas, Brazil 52, 65A, 1993

Plasma ascorbic acid and dehydroascorbic acid levels in very low-birth weight infants

52, 77A, 1993

# **Blood lipids**

The effect of dietary lipid manipulation on serum lipid concentrations and fatty acid composition 52, 268A, 1993

### **Blood pressure**

Blood pressure fluctuations and cerebral outcome in very low birth weight (VLBW) babies

52, 226A, 1993

### **Body composition**

The changes in body weight and in body composition, estimated using bioelectrical impedance analysis over 72 h of fasting; comparison with estimates based on energy expenditure measured by indirect calorimetry

**52**, 251A, 1993

Effects of overfeeding on protein-energy metabolism and body composition of high genetic potential boars 52, 297A, 1993

Prediction of body density from skinfold thickness in elderly subjects: are the existing equations valid? 52, 346A, 1993

Different predictions of body fat from the same whole-body bio-electrical impedance measurement 52, 347A, 1993

### **Body water**

Estimation of the mass and distribution of body water in surgical patients by multiple-frequency bioelectrical impedance analysis 52, 248A, 1993

### Body weight

Weight-for-height influences outcome in child-hood leukaemia 52, 96A, 1993

Human growth hormone improves body-weight but not disease activity in a chronic model of colitis 52, 255A, 1993

Characteristics of people recording a low energy intake for body weight in a large national survey 52, 343A, 1993

The effect of the CCK receptor antagonist loxiglumide, on feeding behaviour in normal-weight volunteers 52, 350A, 1993

### Bone

Micronutrients and longitudinal growth

**52,** 49, 1993

Dietary factors and vertebral bone density in perimenopausal women from a general medical practice in Northern Ireland

**52,** 44A, 1993

Effect of pea intake on bone protein synthesis and immunoreactive IGF 52, 139A, 1993

Postnatal changes in bone mineral content in preterm infants 52, 223A, 1993

Collagen synthesis in human bone measured using stable isotope-labelled alanine and proline 52, 258A, 1993

Current calcium intake and bone mineral content in young men and women 52, 323A, 1993

### Breakfast cereal

Nutrient intakes and breakfast cereal consumption habits of British schoolchildren

**52,** 322A, 1993

The effects of fibre in the breakfast upon shortterm appetite control: a comparison of soluble and insoluble fibre 52, 381A, 1993

### Breast-feeding

Breast-feeding and other prognostic factors among malnourished children admitted for

diarrhoea in a Madagascar hospital

**52,** 202A, 1993

### 13C Breath studies

Methodological considerations of <sup>13</sup>C breath studies **52,** 365A, 1993 The bio-availability of a <sup>13</sup>C labelled dietary fatty acid in healthy adults **52,** 366A, 1993

#### **Burn injury**

Oxygen consumption during the acute phase of burn injury in infants and children

52, 4A, 1993

#### **Butvrate**

Phenotype modulation in butyrate-treated rat colon carcinoma cell lines 52, 157A, 1993
Propionate presents effects similar to those of butyrate on HT29 cell growth and differentiation 52, 162A, 1993
Factors influencing caecal butyrate in rats fed on

Factors influencing caecal butyrate in rats fed on raw potato starch 52, 376A, 1993

#### Calcium

Calcium homeostasis during contractile activity of vitamin E-deficient skeletal muscle

52, 83A, 1993

Effect of lipid supply in the diet of cows on calcium and magnesium pools in the rumen

52, 151A, 1993

Stimulation of calcium absorption in growing pigs treated for 2 months with porcine growth hormone (GH) 52, 191A, 1993

Calcium absorption from cow's milk and soya milks in young rats 52, 273A, 1993

Current calcium intake and bone mineral content in young men and women 52, 323A, 1993

Changes in the diet of Mandinka women in The Gambia between 1978-79 and 1990-91: consequences for calcium intakes

52, 349A, 1993

### Calorimetry

Evidence of energy-sparing adaptations in Gambian women during pregnancy, assessed by whole-body calorimetry 52, 102A, 1993

#### Cancei

Undernutrition and chronic disease: cancer

**52,** 39, 1993

The immunological and metabolic effects of Larginine in human cancer 52, 387, 1993

Alteration by lymphokines of the epithelial function and barrier capacity of the human colon carcinoma cell line HT29-C119A

**52,** 134A, 1993

Phenotype modulation in butyrate-treated rat colon carcinoma cell lines 52, 157A, 1993

Propionate presents effects similar to those of butyrate on HT29 cell growth and differentiation 52, 162A, 1993

Colon simulation technique as an *in vitro* model to study the effects of diet on microbial production of enzymes potentially involved in colon cancer 52, 183A, 1993

Infusion of the lithium salt of γ-linolenic acid into pancreatic cancer patients increases thymidine

uptake and induces tumour necrosis factor release by peripheral blood mononuclear cells 52, 244A, 1993

#### Cancer cachevia

Increased TNF production does not correlate with cachexia in chronic inflammatory bowel disease 52, 71A, 1993

#### Carbohydrate intake

The acute effects of lunches of differing fat and carbohydrate content on mood and cognitive performance 52, 32A, 1993

### Carbon dioxide

The recovery of labelled carbon dioxide in pregnant subjects 52, 247A, 1993

### Cardiovascular responses

The effect of dietary copper deficiency on endothelium-dependent relaxation of rat aorta in vitro 52, 27A, 1993

The effect of meal size on the cardiovascular responses to food ingestion 52, 37A, 1993

The relationship between changes in metabolic

rate, haemodynamic variables and plasma catecholamine levels during acute starvation

**52,** 53A, 1993

Antioxidant protection of the anoxicreoxygenated heart 52, 62A, 1993

Measurement of free-living energy expenditure by continuous heart rate monitoring and doubly-labelled water 52, 93A, 1993

Central and peripheral cardiovascular responses to meals of different composition measured over a 3 h period 52, 290A, 1993

The metabolic and cardiovascular responses to infused adrenaline in lean and obese subjects

52, 304A, 1993

# Caribbean

Nutrition and health in the developing world: the Caribbean experience 52, 183, 1993

#### Cat foods

The digestibility of macronutrients in the growing domestic cat 52, 275A, 1993

### CCK-octapeptide

Cholecystokinin octapeptide suppresses feeding and conditions colour aversion in chickens

**52,** 30A, 1993

### Cerebral outcome

Blood pressure fluctuations and cerebral outcome in very low birth weight (VLBW) babies

52, 226A, 1993

#### Childhood

Chronic undernutrition and the young

**52**, 11, 1993

Micronutrient undernutrition in British schoolchildren 52, 155, 1993

Some aspects of the long-term effects of malnutrition on the behaviour of children in the Third World 52, 201, 1993

Oxygen consumption during the acute phase of burn injury in infants and children

**52,** 4A, 1993

A follow-up study to investigate an increase in Giardia lamblia infection among Bangladeshi children receiving regular anthelmintic treatment 52, 8A, 1993

Vol. 52 The intensity of infection with Ascaris lumbricoides and the anthropometric status of children in Bangladesh 52, 9A, 1993 Phospholipid-2-9,12,15-linolenic acid in Gambian Plasmodium children with falciparum malaria **52,** 10A, 1993 Eating habits, nutrient intake and growth in pre-school children 52, 11A, 1993 A preliminary report on dietary intake and anthropometry of children vegetarian compared with omnivores 52, 13A, 1993 Zinc supplementation in young Gambian children 52, 25A, 1993 Behaviour of stunted children and the relationship to development **52,** 36A, 1993 Effects of iodine and retinol supplementation on thyroid function in pre-school children in the Morogoro Region of Tanzania 52, 60A, 1993 Influence of illness on serum retinol of children in northern Ghana 52, 64A, 1993 Weight-for-height influences outcome in child-52, 96A, 1993 hood leukaemia Reported energy intakes and basal metabolic rates of normal healthy children aged 5-15 52, 97A, 1993 Energy intakes and resting energy expenditure in children of short stature and those receiving growth hormone 52, 98A, 1993 Supplementing meals with leaf concentrate in Sri Lankan nursery schools: impact On anthropometric status **52,** 99A, 1993 Factors associated with undernutrition in preschool Tanzanian children

**52,** 109A, 1993

Nutrient intakes and breakfast cereal consumption habits of British schoolchildren

**52.** 322A, 1993 An assessment of the iron status of a sample of

normal, healthy, 1-year-old children **52,** 333A, 1993

The nutrient contribution of weekday lunch in 7 to 8-year-old children 52, 385A, 1993

#### Cholecystokinin

Adaptation to high-fat diets: Effect on plasma cholecystokinin (CCK) and food intake

**52,** 127A, 1993 Pharmacological and biochemical evidence for differential expression of A- and B-subtype CCK-gastrin receptors in the calf pancreas during development **52,** 169A, 1993

The effect of the CCK receptor antagonist loxiglumide, on feeding behaviour in normalweight volunteers 52, 350A, 1993

### Cholesterol metabolism

Cholesterol oxidation in porcine muscle as influenced by pig diet 52, 54A, 1993

An investigation of the effects of two indigenous African foods, Detarium microcarpum and Cissus rotundifolia on rat plasma cholesterol levels 52, 372A, 1993

Cholesterol metabolism and crypt cell proliferation rates in rats in response to rye based 52, 373A, 1993 Effect of cholesterol feeding on DNA damage in hamster heart cells **52.** 374A. 1993

#### Chronic disease

Undernutrition and chronic disease: cancer

**52,** 39, 1993

Resting energy expenditure with the ventilated hood and mouthpiece systems in patients with chronic lung disease **52,** 6A, 1993

Increased TNF production does not correlate with cachexia in chronic inflammatory bowel disease **52,** 71A, 1993

Superior absorption of medium-chain triacylglycerols compared with conventional dietary long-chain fats in children with chronic liver disease **52,** 253A, 1993

#### Chronic undernutrition

Chronic malnutrition: protein metabolism

**52,** 1, 1993

Chronic undernutrition and the young

52, 11, 1993

Chronic undernutrition in pregnancy and lactation **52,** 19, 1993

Chronic undernutrition and the aged

**52**, 29, 1993

Undernutrition and chronic disease: cancer

**52,** 39, 1993

#### Clenbuterol

Effects of clenbuterol on tissue mass after scald injury in the rat 52, 75A, 1993

#### Cognitive performance

Poorer cognitive performance associated with dieting and high levels of dietary restraint

52, 31A, 1993

The acute effects of lunches of differing fat and carbohydrate content on mood and cognitive 52, 32A, 1993 performance

Raised metabolic demands for energy may contribute to weight loss in institutionalized psychogeriatric patients **52,** 45A, 1993

The effects of dietary and intraduodenal lipid on arousal, and performance in two psychological 52, 352A, 1993 tasks

#### Cold exposure

Maternal manipulation of iodothyronine 5'deiodinase activity in the ovine foetus

52, 300A, 1993

### **Colitis**

Human growth hormone improves body-weight but not disease activity in a chronic model of 52, 255A, 1993

Changes in short-chain fatty acids in experimental 52, 256A, 1993 colitis

### Collagen

Collagen synthesis in human bone measured using stable isotope-labelled alanine and proline 52, 258A, 1993

### Colon simulation technique

Colon simulation technique as an in vitro model to study the effects of diet on microbial production of enzymes potentially involved in colon cancer 52, 183A, 1993

### Colonic bacteria

The effect of non-starch polysaccharide on

bacterial contribution to faecal mass

**52,** 41A, 1993

Competition for hydrogen between methanogenesis and hydrogenotrophic acetogenesis in human colonic flora studied by <sup>13</sup>C NMR

**52,** 118A, 1993

Adaptation to two doses of lactulose by human colonic flora in continuous culture

**52,** 156A, 1993

### Colonic motility

Short-chain fatty acids (SCFA) and colonic motility: influence on segmental motor patterns 52, 152A, 1993

Short-chain fatty acids (SCFA) and colonic motility: influence on propulsive motor patterns 52, 198A, 1993

### Colonocytes

Metabolic characteristics of isolated colonocytes: modulation by dietary fibre or by the colonic microflora 52, 133A, 1993

#### Colostrum

Growth factors in colostrum: receptor localization and stimulation of phosphorylation in microvillar membranes of neonatal pigs

**52,** 213A, 1993

#### Colour aversion

Cholecystokinin octapeptide suppresses feeding and conditions colour aversion in chickens

52, 30A, 1993

#### Confocal microscopy

Measuring intestinal crypt cell proliferation by confocal microscopy 52, 184A, 1993

### Cooking

Nutritional value of lentil and effect of cooking on free amino acid tissue concentrations of growing rats 52, 132A, 1993

Copper

Effects of dietary lactose and sucrose on antioxidant status in copper-deficient diabetic rats 52, 26A, 1993

The effect of dietary copper deficiency on endothelium-dependent relaxation of rat aorta in vitro 52, 27A, 1993

Immunological function in copper deficiency **52,** 28A, 1993

### Corn oil

Basal and hormone-stimulated rates of lipogenesis in liver and adipose tissue of rats fed on corn oil and fish oil diets 52, 51A, 1993

### Coronary heart disease

Serum antioxidants and malondialdehyde in homocysteinaemics with coronary heart disease, non-homocysteinaemics with coronary heart disease, and normal control subjects 52, 73A, 1993

### Cortisol

Concentrations of serum cortisol, insulin and blood glucose in dairy cows fed on diets with different amounts of concentrate and roughage 52, 363A, 1993

### Creatine

The influence of dietary creatine supplementation on work output and metabolism during repeated bouts of maximal isokinetic cycling in man 52, 362A, 1993

### Critical illness

Protein synthesis rates in individual tissues of critically-ill patients 52, 230A, 1993

Plasma vitamin C concentrations in critically ill patients 52, 314A, 1993

### Crypt cells

Measuring intestinal crypt cell proliferation by confocal microscopy 52, 184A, 1993

Cholesterol metabolism and crypt cell proliferation rates in rats in response to rye based diets 52, 373A, 1993

#### Cystic fibrosis

Faecal losses of retinol and α-tocopherol in subjects with cystic fibrosis and healthy controls 52, 2A, 1993

### Cytokines

Dietary lipids modulate the physicochemical characteristics of rat hepatocyte plasma membranes 52, 318A, 1993

### Developing world

Nutrition and health in the developing world: the Caribbean experience **52**, 183, 1993

The importance of dietary fat in maintaining energy balance in a rural subsistence farming community 52, 48A, 1993

Factors associated with undernutrition in preschool Tanzanian children

**52**, 109A, 1993

# Dexamethasone

Chronic lung disease, dexamethasone and linear growth in neonates 52, 225A, 1993

### Diabetes

Effects of dietary lactose and sucrose on antioxidant status in copper-deficient diabetic rats 52, 26A, 1993

Hepatic drug-metabolizing enzymes in spontaneously obese hyperglycaemic (ob/ob) mice 52, 43A, 1993

Hypocaloric treatment of obese type 2 diabetics 52, 369A, 1993

# Diamine oxidase

Effects of polymer feeds on ileal integrity as assessed by diamine oxidase release

**52,** 74A, 1993

### Diarrhoea

The role of zinc and vitamin A deficiency in diarrhoeal syndromes in developing countries 52, 131, 1993

High bacterial counts in the proximal small intestine; an unexpected finding in normal cats

intestine: an unexpected finding in normal cats 52, 126A, 1993 [15N] and [14C]glutamine fluxes across rabbit

[15N] and [14C]glutamine fluxes across rabbiileum in experimental bacterial diarrhoea

52, 193A, 1993

Breast-feeding and other prognostic factors among malnourished children admitted for diarrhoea in a Madagascar hospital

**52**, 202A, 1993

Variations in the formulation of commerciallyavailable oral rehydration solutions intended for use in the treatment of diarrhoea

52, 379A, 1993

#### Diet selection

Lunchtime dietary choice of young teenagers in Tayside 52, 40A, 1993
The effect of food deprivation, time of exposure

and type of feed on diet selection of broiler chickens 52, 380A, 1993

### Dietary advice

Food sources of fat and sugar in the Northern Irish diet 52, 16A, 1993

How effective is healthy eating advice for women from different socio-economic groups?

52, 20A, 1993

# Dietary compliance

Dietary compliance and changes in the nutritional status of chronic renal failure patients on conventional low-protein diet 52, 239A, 1993

# Dietary fat: carbohydrate ratio

The effect of covertly manipulating the dietary fat: carbohydrate ratio of isoenergetically dense diets on ad lib. food intake in "free-living" humans 52, 351A, 1993

### Dietary fats

The influence of interleukin-6 (IL-6) and dietary lipids on total protein synthesis rates in cultured rat hepatocytes 52, 337A, 1993

The effect of covert manipulation of dietary fat and energy density on *ad libitum* food intake in "free-living" humans 52, 348A, 1993

The effects of dietary and intraduodenal lipid on arousal, and performance in two psychological tasks 52, 352A, 1993

The effect of dietary lipid manipulation on lymphocyte proliferation 52, 375A, 1993

### Dietary fibre

The effect of dietary fibres on iron and zinc absorption in sucking rats 52, 23A, 1993

Comparison of energy, ascorbic acid and fibre estimates by a food-frequency questionnaire and a 10 d weighed record in smokers

52, 112A, 1993

Involvement of sugar composition of dietary fibre in formation of short-chain fatty acids during in vitro fermentation with human microflora

**52,** 116A, 1993

Chemical characteristics of insoluble dietary fibre from sea-lettuce (*Ulva lactuca*)

52, 122A, 1993

Starch hydrolysis in the rabbit intestine and effect on fibre degradation **52,** 123A, 1993

Metabolic characteristics of isolated colonocytes: modulation by dietary fibre or by the colonic microflora 52, 133A, 1993

The use of ruminal indigestible neutral detergent fibre to study intradiurnal variation of digestion and outflow of rumen dry matter (RDM) in sheep fed ad lib. on lucerne hay

52, 149A, 1993

Ruminal fermentation of neutral detergent fibre and nitrogen in legume, grass and mixtures by growing steers 52, 158A, 1993

In vitro-fermentation of purified fibre from brown algae by human faecal bacteria

**52,** 159A, 1993

Simulation of the effects of diet on the contribution of rumen protozoa to degradation of fibre in the rumen 52, 175A, 1993

The effect of dietary fibre on oro-caecal transit time in dogs 52, 201A, 1993

Dietary fibre and cell proliferation in the stomach 52, 208A, 1993

Small-intestinal absorption of minerals during enteral feeding supplemented with a soyabean polysaccharide and soya-bean oligosaccharide fibre 52, 241A, 1993

The effects of fibre in the breakfast upon shortterm appetite control: a comparison of soluble and insoluble fibre 52, 381A, 1993

#### Dietary intake

A preliminary report on dietary intake and anthropometry of vegetarian children compared with omnivores 52, 13A, 1993

Traditional dietary intakes and serum lipids in Singapore ethnic groups 52, 14A, 1993

Effect of diet and stage of lactation on milk composition in rats. 52, 100A, 1993

Faecal steroid excretion and relation to dietary intake in Indian and White vegetarians compared with white omnivores

**52,** 370A, 1993

# Dietary restriction

Poorer cognitive performance associated with dieting and high levels of dietary restraint 52, 31A, 1993

### Dietary survey

Fruit and vegetable consumption in north Glasgow: some results from the MONICA study of 1986 and 1989 52, 12A, 1993

Dietary patterns in functional and organic dyspepsia 52, 72A, 1993

Comparison of energy, ascorbic acid and fibre estimates by a food-frequency questionnaire and a 10 d weighed record in smokers

**52,** 112A, 1993 of food photo-

Development and evaluation of food photographs for use in retrospective dietary surveys **52**, 329A, 1993

Can recorded energy intake be used to estimate energy expenditure? 52, 342A, 1993

Characteristics of people recording a low energy intake for body weight in a large national survey 52, 343A, 1993

Changes in the diet of Mandinka women in The Gambia between 1978-79 and 1990-91: consequences for calcium intakes

**52,** 349A, 1993

Hypocaloric treatment of obese type 2 diabetics 52, 369A, 1993

### Dieting

Causes and consequences of dieting and anorexia **52**, 211, 1993

Digestibility

Digestibility in Labrador Retrievers during growth 52, 294A, 1993

Adaptation to a diet by cats and dogs:

implications for protocol design
52, 296A, 1993

DNA

502

Effect of cholesterol feeding on DNA damage in hamster heart cells 52, 374A, 1993

Dopamine

Metabolic effects of 3 h infusion of dopamine at 2 μg and 5 μg/min per kg 52, 249A, 1993

Doppler shift radar

The effect in rats of intestinal intraluminal lipid on postprandial activity determined by Doppler shift radar 52, 359A, 1993

Doubly-labelled water

Measurement of free-living energy expenditure by continuous heart rate monitoring and doubly-labelled water 52, 93A, 1993

**Drug addiction** 

Undernutrition in drug addicts. Immunological study 52, 261A, 1993

Dry matter

The use of ruminal indigestible neutral detergent fibre to study intradiurnal variation of digestion and outflow of rumen dry matter (RDM) in sheep fed ad lib. on lucerne hay

**52**, 149A, 1993

Dyspepsia

Dietary patterns in functional and organic dyspepsia 52, 72A, 1993

Eating behaviour

Eating habits, nutrient intake and growth in pre-school children 52, 11A, 1993

Eating disorders

Causes and consequences of dieting and anorexia **52,** 211, 1993

Elderly

Chronic undernutrition and the aged

Raised metabolic demands for energy may contribute to weight loss in institutionalized

psychogeriatric patients 52, 45A, 1993
The validation of a food frequency and amount questionnaire for assessing dietary antioxidant

intakes amongst older adults 52, 63A, 1993
Vitamin C deficiency is associated with pressure sores in elderly patients with femoral neck fractures 52, 79A, 1993

Anthropometric measurements in elderly orthopaedic patients: 6-month follow-up of high- and low-nutritional risk groups

52, 108A, 1993 Energy intake and energy expenditure in acute admissions to a geriatric unit 52, 307A, 1993

The diet, physical activity patterns and anthropometry of a group of free-living elderly people 52, 344A, 1993

Prediction of body density from skinfold thickness in elderly subjects: are the existing equations valid? 52, 346A, 1993

**Endocrine changes** 

Metabolic and endocrine changes induced by heat exposure in chickens 52, 165A, 1993

Endotoxin

Modulation of the response of rats to endotoxin by butter, olive oil and corn oil 52, 68A, 1993 Vitamin E status modulates the inflammatory response to endotoxin in rats 52, 84A, 1993 Modulation of the response of rats to endotoxin by butter, olive oil and corn oil

52, 227A, 1993

Modest in utero protein restriction modulates responses to endotoxin in seven week old rats fed standard chow 52, 291A, 1993

Effects of endotoxin on metabolic responses of rats fed with olive and maize oils and butter

**52,** 340A, 1993

**Energy balance** 

The importance of dietary fat in maintaining energy balance in a rural subsistence farming community 52, 48A, 1993

**Energy deficiency** 

Responses of chronically energy deficient tropical subjects to brief cold exposure 52, 92A, 1993

**Energy density** 

The effect of covert manipulation of dietary fat and energy density on ad lib. food intake in humans 52, 35A, 1993

**Energy deprivation** 

Effect of chronic energy deprivation on 24 h activity of lean and obese mice 52, 33A, 1993

Energy expenditure

Resting energy expenditure with the ventilated hood and mouthpiece systems in patients with chronic lung disease 52, 6A, 1993

Effects of potassium depletion and repletion on growth and resting energy expenditure in the growing rat 52, 66A, 1993

Measurement of free-living energy expenditure by continuous heart rate monitoring and doubly-labelled water 52, 93A, 1993

The effect of season and leisure activity on the energy expenditure of adult males

52, 94A, 1993
An acute-phase protein response is associated with increased resting energy expenditure in weight-losing patients with either benign or malignant pancreatic disease 52, 240A, 1993

Does dietary protein influence resting energy expenditure? 52, 305A, 1993

24h energy expenditure patterns in multiple organ failure 52, 306A, 1993

Energy intake and energy expenditure in acute admissions to a geriatric unit 52, 307A, 1993

Between- and within-subject variability in energy expenditure during physical activity

**52,** 312A, 1993

Can recorded energy intake be used to estimate energy expenditure? 52, 342A, 1993

Energy intake

Reported energy intakes and basal metabolic rates of normal healthy children aged 5-15 years 52, 97A, 1993

Comparison of energy, ascorbic acid and fibre estimates by a food-frequency questionnaire and a 10 d weighed record in smokers

**52,** 112A, 1993

Nutrient digestibility and energy use in growing medium breed puppies 52, 205A, 1993

How much energy should we prescribe for patients with chronic renal failure?

52, 242A, 1993

Energy restriction affects muscle fibre area and distribution selectively during growth

**52,** 298A, 1993

The energy intakes of growing canaries

52, 299A, 1993 Energy intake and energy expenditure in acute

admissions to a geriatric unit 52, 307A, 1993 Can recorded energy intake be used to estimate

energy expenditure? 52, 342A, 1993 Characteristics of people recording a low energy

intake for body weight in a large national survey 52, 343A, 1993

The effect of covert manipulation of dietary fat and energy density on ad libitum food intake in "free-living" humans 52, 348A, 1993

### **Energy metabolism**

Metabolic consequences of intestinal parasitism 52, 121, 1993

Linoleic and α-linolenic acid oxidation during undernutrition: are they important in energy metabolism? 52, 47A, 1993

Energy intakes and resting energy expenditure in children of short stature and those receiving growth hormone 52, 98A, 1993

Protein and energy metabolism during mild zinc deficiency in adult man 52, 361A, 1993

### **Energy partitioning**

Energy partitioning, tissue growth and appetite control 52, 69, 1993

### **Energy sparing**

Evidence of energy-sparing adaptations in Gambian women during pregnancy, assessed by whole-body calorimetry 52, 102A, 1993

#### Enterocytes

Genetic regulation of enterocyte differentiation

52, 293, 1993

Postnatal development of glucose and galactose metabolism in isolated pig enterocytes

52, 194A, 1993

Polyamine metabolism in enterocytes isolated from newborn pigs 52, 203A, 1993

#### Entero-insular axis

The chronic and acute effects of tryptophan (TRP) on hormones of the enteroinsular axis 52, 130A, 1993

### **Enzyme activity**

Analytical characterization by reverse-phase HPLC of products obtained by in vitro enzymic hydrolysis of whey proteins with gastric and pancreatic proteases

52, 148A, 1993
Distribution and post-prandial variations of the activity of polysaccharide-degrading enzymes in rumen micro-organisms 52, 150A, 1993

### **Enzyme supplementation**

Effect of heat treatment and enzyme supplementation of barley-based diets on performance of broiler chicks 52, 50A, 1993

Effects of processing and feed enzymes on nutrient digestibility in diets for weaned pigs

52, 211A, 1993

Effect of wheat bushel weight and enzyme supplementation on the apparent metabolisable energy content of diets and on broiler performance 52, 360A, 1993

### **Enzyme synthesis**

Molecular aspects of enzyme synthesis in the exocrine pancreas with emphasis on development and nutritional regulation 52, 301, 1993

### **Epidemiology**

Epidemiological aspects of fish in the diet

**52,** 437, 1993

#### Essential fatty acids

Linoleic and α-linolenic acid oxidation during undernutrition: are they important in energy metabolism? 52, 47A, 1993

### Esterification

Esterification of oleic and arachidonic acids in mouse jejunum 52, 161A, 1993

### Euglycaemic clamp

Normal pregnancy: a state of insulin resistance? Studies with the euglycaemic clamp

**52,** 215A, 1993

#### Exercise

Moderate exercise prior to ingestion of a high-fat meal decreases postprandial lipidaemia

**52**, 128A, 1993

Dietary fat utilization by the exercising forearm 52, 282A, 1993

Influence of the intensity of prior exercise on postprandial lipaemia in man 52, 284A, 1993 Exercise-induced anorexia in lean men

**52,** 382A, 1993

### Faecal mass

The effect of non-starch polysaccharide on bacterial contribution to faecal mass

52, 41A, 1993

# Faecal microflora

Establishment of *Bifidobacterium bifidum* in the intestine of human neonates: relationship with the bifidus-factors found in the stools

**52,** 120A, 1993

In vitro-fermentation of purified fibre from brown algae by human faecal bacteria

**52**, 159A, 1993

The effect of sucrose fatty esters on metabolism of human faecal bacteria 52, 160A, 1993

### Farm animals

The behavioural effects of undernutrition in confined farm animals 52, 219, 1993

#### Fat

Utilization of intravenous fat in the surgical newborn infants 52, 237A, 1993 Superior absorption of medium-chain triacyl-

glycerols compared with conventional dietary

long-chain fats in children with chronic liver disease 52, 253A, 1993

#### Fat intake

Food sources of fat and sugar in the Northern Irish diet 52, 16A, 1993

The acute effects of lunches of differing fat and carbohydrate content on mood and cognitive performance 52, 32A, 1993

The effect of covert manipulation of dietary fat and energy density on *ad lib*. food intake in humans 52, 35A, 1993

The importance of dietary fat in maintaining energy balance in a rural subsistence farming community 52, 48A, 1993

The effect of dietary fatty acid composition on mRNA for lipoprotein lipase in the rat

52, 49A, 1993 Effects of a 4-week dietary fat feeding trial on the metabolic responses to tumour necrosis factor α in rats 52, 67A, 1993

The intestinal adaptive response of the rat to soluble non-starch polysaccharides is partially dependent on dietary fat 52, 119A, 1993

Adaptation to high-fat diets: Effect on plasma cholecystokinin (CCK) and food intake

**52**, 127A, 1993

Moderate exercise prior to ingestion of a high-fat meal decreases postprandial lipidaemia

52, 128A, 1993
Effect of lipid supply in the diet of cows on

calcium and magnesium pools in the rumen 52, 151A, 1993

Adaptation of gastric lipase in mini-pigs fed on a high-fat diet 52, 166A, 1993

Effect of progressive enrichment on monounsaturated fatty acids (MUFA) in the diet on serum lipids, lipoproteins and fatty acids in normolipidemic males 52, 197A, 1993

Fats decrease gastric emptying rate and reduce post-prandial glycaemia 52, 199A, 1993

post-prandial glycaemia 52, 199A, 1993 Modification of postprandial substrate balance by the addition of fat 52, 236A, 1993

The effect of dietary lipid manipulation on food intake, weight gain and tissue weights of rats

52, 267A, 1993
The effect of dietary lipid manipulation on serum lipid concentrations and fatty acid composition 52, 268A, 1993

The effect of test meal fatty acid composition on postprandial triacylglycerol and lipoprotein lipase responses in normal subjects

52, 283A, 1993 The effect of dietary lipid manipulation on the natural killer cell activity of rat

lymphocytes 52, 287A, 1993
Low intensity exercise after consumption of a high-fat meal decreases postprandial lipaemia during the recovery period 52, 309A, 1993

Evidence that fat oxidation is modulated by fat intake in lean but not in obese women

Dietary lipids modulate the physicochemical characteristics of rat hepatocyte plasma membranes 52, 318A, 1993

Nutritional implications of reduced-fat (RF) food use in free-living consumers 52, 325A, 1993

Correction for measurement error in fat intakes estimated by a food frequency questionnaire 52, 327A, 1993

Attitudes to fat and portion weights of fat spreads 52, 356A, 1993

The effect in rats of intestinal intraluminal lipid on postprandial activity determined by Doppler shift radar 52, 359A, 1993

Obesity as an adaptation to a high-fat diet: evidence from a cross-sectional study

**52**, 367A, 1993

The prevalence of overweight and obesity in different fat and sugar consumption groups 52, 383A, 1993

Fat substitutes: their potential effect on the fat content of the diet 52, 386A, 1993

#### Fat metabolism

Effects of triacylglycerol structure on postprandial chylomicron triacylglycerol clearance

52, 52A, 1993

Dietary fat utilization by the exercising forearm 52, 282A, 1993

Evidence that fat oxidation is modulated by fat intake in lean but not in obese women

52, 310A, 1993

### Fat spreads

Attitudes to fat and portion weights of fat spreads 52, 356A, 1993

### Fat substitutes

Fat substitutes: their potential effect on the fat content of the diet 52, 386A, 1993

#### Fat-free mass

Muscle thickness as an index of fat-free mass

52, 345A, 1993

### Fatty acids

The effect of biotin deficiency on the fatty acid composition of porcine tissues 52, 86A, 1993

Short-chain fatty acids (SCFA) and colonic motility: influence on segmental motor patterns 52, 152A, 1993

Effect of progressive enrichment on monounsaturated fatty acids (MUFA) in the diet on serum lipids, lipoproteins and fatty acids in normolipidemic males 52, 197A, 1993

Short-chain fatty acids (SCFA) and colonic motility: influence on propulsive motor patterns 52, 198A, 1993

The significance of *n*-3 fatty acids in fetal and neonatal development and some alternative sources 52, 224A, 1993

Changes in short-chain fatty acids in experimental colitis 52, 256A, 1993

Estimates of the vitamin E requirement in rats fed long-chain n-3 fatty acids 52, 319A, 1993

Vitamin E and polyunsaturated fatty acid intake modulate the inflammatory response to cigarette smoke 52, 335A, 1993

Influence of ethyl myristate, palmitate and oleate on plasma lipoprotein metabolism in the hamster 52, 364A, 1993

The bio-availability of a <sup>13</sup>C labelled dietary fatty acid in healthy adults **52**, 366A, 1993

### Feed intake

Some aspects of the biology of feeding and growth in fish 52, 403, 1993

Variation in individual food consumption rates of fish and its implication for the study of fish nutrition and physiology 52, 427, 1993

Cholecystokinin octapeptide suppresses feeding and conditions colour aversion in chickens

52, 30A, 1993
The effect of dietary lipid manipulation on food intake, weight gain and tissue weights of rats

52, 267A, 1993 Effects of overfeeding on protein-energy metab-

olism and body composition of high genetic potential boars 52, 297A, 1993

The effect of subclinical parasitism with Tricha

The effect of subclinical parasitism with *Trichostrongylus colubriformis* on the diet selection of growing sheep **52,** 353A, 1993

Substitution of low-protein for high-protein feed by broiler chickens. 52, 355A, 1993

Acute effect of peripheral interleukin-1β administration on macronutrient selection in the rat 52, 358A, 1993

### Feeding behaviour

Food behaviour evolution in anorexia nervosa **52,** 34A, 1993

#### Fermentation

Factors affecting fermentation reactions in the large bowel **52,** 367, 1993

Involvement of sugar composition of dietary fibre in formation of short-chain fatty acids during in vitro fermentation with human microflora

**52.** 116A, 1993

Effect of inulin on the fermentation profile in rats associated with human flora from low-, high-and non-methane producers 52, 154A, 1993

Effects of colonic fermentation on respiratory gas exchanges following a glucose load in man

**52,** 155A, 1993

Ruminal fermentation of neutral detergent fibre and nitrogen in legume, grass and mixtures by growing steers 52, 158A, 1993

In vitro-fermentation of purified fibre from brown algae by human faecal bacteria

**52,** 159A, 1993

### Fish consumption

Epidemiological aspects of fish in the diet

**52**, 437, 1993

Variability of the composition of fish oils: significance for the diet 52, 441, 1993

Fish consumption in North Glasgow: results from the MONICA studies of 1986 and 1989

**52,** 270A, 1993

Contribution of selenium content of fish on dietary intake 52, 271A, 1993

### Fish nutrition

Some aspects of the biology of feeding and growth in fish 52, 403, 1993

Variation in individual food consumption rates of fish and its implication for the study of fish nutrition and physiology 52, 427, 1993

Nutritional requirements of fish **52**, 417A, 1993 **Fish oil** 

Variability of the composition of fish oils: significance for the diet 52, 441, 1993

Marine oils: metabolic effects and role in human nutrition **52,** 457, 1993

Postprandial lipid and lipoprotein response to a fish-oil test meal 52, 39A, 1993

Basal and hormone-stimulated rates of lipogenesis in liver and adipose tissue of rats fed on corn oil and fish oil diets 52, 51A, 1993

Fish oil supplementation changes membrane fluidity and phospholipid profiles in humans 52, 269A, 1993

Lipid peroxidation and ultraviolet-B erythemal responses in patients consuming fish oil supplements 52, 317A, 1993

### Folate

The effect of pregnancy on folate catabolism in the rat 52, 85A, 1993

### Food budgets

Modest-but-adequate food budgets for five household types 52, 42A, 1993

#### Food choice

Exposure to choice feeding at different ages and the subsequent choice of broiler chickens

**52,** 354A, 1993

### Food deprivation

The effect of food deprivation, time of exposure and type of feed on diet selection of broiler chickens 52, 380A, 1993

### Food frequency questionnaire

The validation of a food frequency and amount questionnaire for assessing dietary antioxidant intakes amongst older adults 52, 63A, 1993

Correction for measurement error in fat intakes estimated by a food frequency questionnaire 52, 327A, 1993

An initial assessment of food and nutrient intake for the development of a food frequency questionnaire for use in an Afrocaribbean population sample 52, 328A, 1993

Development of a food frequency questionnaire 52, 330A, 1993

### Food intake

The effect of covert manipulation of dietary fat and energy density on ad lib. food intake in humans 52, 35A, 1993

The effect of meal size on the cardiovascular responses to food ingestion **52,** 37A, 1993

Dietary factors and vertebral bone density in perimenopausal women from a general medical practice in Northern Ireland

52, 44A, 1993

Adaptation to high-fat diets: Effect on plasma cholecystokinin (CCK) and food intake

52, 127A, 1993

Central and peripheral cardiovascular responses to meals of different composition measured over a 3 h period 52, 290A, 1993

An initial assessment of food and nutrient intake for the development of a food frequency questionnaire for use in an Afrocaribbean population sample 52, 328A, 1993

The effect of covert manipulation of dietary fat and energy density on *ad libitum* food intake in "free-living" humans **52,** 348A, 1993

The effect of the CCK receptor antagonist loxiglumide, on feeding behaviour in normal-weight volunteers 52, 350A, 1993

The effect of covertly manipulating the dietary fat: carbohydrate ratio of isoenergetically dense diets on *ad lib*. food intake in "free-living" humans 52, 351A, 1993

Food photographs

Development and evaluation of food photographs for use in retrospective dietary surveys 52, 329A, 1993

Forage intake

The effect of increased ammonia supply on postprandial hepatic metabolism in growing steers fed either forage or cereal-based diets

**52**, 295A, 1993

#### Free radicals

Effect of vitamin C supplementation on the peroxyl radical trapping ability (TRAP) of plasma from female smokers 52, 80A, 1993

Freezing point

Factors affecting the freezing point depression of milk 2 52, 264A, 1993

#### Fruit intake

Fruit and vegetable consumption in north Glasgow: some results from the MONICA study of 1986 and 1989 52, 12A, 1993

Fungi

Ribosomal DNA-targeted hybridization probes for the detection, identification and quantitation of anaerobic rumen fungi

**52,** 176A, 1993

### Galactomannan

Microscopical location of guar galactomannan in mid-jejunal biopsies from the pig: potential long-term immunological implications

52, 285A, 1993
The use of microscopy in the evaluation of the relationship between guar galactomannan and

starch in guar wheat bread: subsequent physiological implications in the pig 52, 286A, 1993
Effect of the addition of guar gum to an acute test meal on post-prandial lipaemia in healthy young adults 52, 288A, 1993

### Galactose

Postnatal development of glucose and galactose metabolism in isolated pig enterocytes

52, 194A, 1993

### **Gastric function**

Phytase activity in wheat bran subjected to simulated gastric digestion 52, 57A, 1993
Adaptation of gastric lipase in mini-pigs fed on a high-fat diet 52, 166A, 1993
Fats decrease gastric emptying rate and reduce post-prandial glycaemia 52, 199A, 1993

The respective roles of gastric distension and intestinal nutrients in the induction of post-prandial sensations 52, 292A, 1993

### **Gastrointestinal function**

Postnatal growth of gut and muscle: competitors or collaborators **52,** 57, 1993

The chemistry of aluminium in the gastrointestinal lumen and its uptake and absorption 52, 241, 1993

Dietary regulation of intestinal nutrient carriers 52, 315, 1993

Manipulation of the gut microflora: experimental approach in animals 52, 345, 1993

Manipulation of the human gut microflora

**52,** 357, 1993

Factors affecting fermentation reactions in the large bowel 52, 367, 1993
Interactions between nutrition and the intestinal

microflora 52, 375, 1993

Relationships between plasma, gastric tissue and gastric juice ascorbic acid levels in subjects with and without gastritis 52, 61A, 1993

The intestinal adaptive response of the rat to soluble non-starch polysaccharides is partially dependent on dietary fat 52, 119A, 1993

The adaptive response of the alimentary tract of the rat to soluble non-starch polysaccharide (NSP) components of oats 52, 124A, 1993

Alteration by lymphokines of the epithelial function and barrier capacity of the human colon carcinoma cell line HT29-C119A

**52,** 134A, 1993

Effect of soya-bean trypsin inhibitors in the diet on trypsin activities in pancreatic tissue and ileal digesta and trypsin inhibitor activity in small intestinal digesta of piglets

**52,** 141A, 1993

Adaptation of gastric lipase in mini-pigs fed on a high-fat diet 52, 166A, 1993

The behaviour of Co-EDTA- and Yt-labelled hay in the gastrointestinal tract of sheep

**52,** 178A, 1993

Dietary fibre and cell proliferation in the stomach 52, 208A, 1993

# Gastro-oesophageal reflux

Change in oesophageal pH: what does it tell us about gastro-oesophageal reflux in preterm infants? 52, 220A, 1993

#### Gene expression

Pharmacological and biochemical evidence for differential expression of A- and B-subtype CCK-gastrin receptors in the calf pancreas during development 52, 169A, 1993

Molecular isolation of genes expressed in the differentiated epithelium of the pig small intestine 52, 187A, 1993

Programming of expression of disaccharidases in the neonatal small intestine: use of a xenograft model 52, 210A, 1993

### General practitioners

The place of nutrition in the general practice consultation: a pilot study 52, 106A, 1993

### Genetic regulation

Genetic regulation of enterocyte differentiation **52**, 293, 1993

### Giardia lamblia

A follow-up study to investigate an increase in Giardia lamblia infection among Bangladeshi children receiving regular anthelmintic treatment 52, 8A, 1993

### Glucagon-like peptides

Glucagon-like peptide-1<sub>(7-36)</sub> amide and glucosedependent insulinotropic polypeptide in the hyperinsulinaemia of obese hyperglycaemic (*ob/ob*) mice **52**, 38A, 1993

### Glucose clamping

Metabolic and hormonal effects of hyperglycaemic glucose clamping in multiple organ failure 52, 235A, 1993

### Glucose metabolism

Influence of the weaning diet on the changes of glucose metabolism and of insulin sensitivity 52, 325, 1993

Effects of colonic fermentation on respiratory gas exchanges following a glucose load in man

**52,** 155A, 1993

[1-13C]Leucine uptake into the portal vein of sheep receiving exogenous glucose intravascularly or intraduodenally 52, 192A, 1993

Postnatal development of glucose and galactose metabolism in isolated pig enterocytes

52, 194A, 1993 Manipulation of glucose utilization in multiple organ failure using somatostatin

**52,** 234A, 1993

The effect of glucose intake on substrate utilization and energy expenditure in the surgical newborn infant 52, 238A, 1993

The metabolic effects of acute hyperketonaemia on whole body and forearm glucose disposal 52, 281A, 1993

The use of microscopy in the evaluation of the relationship between guar galactomannan and starch in guar wheat bread: subsequent physiological implications in the pig 52, 286A, 1993

Concentrations of serum cortisol, insulin and blood glucose in dairy cows fed on diets with different amounts of concentrate and roughage 52, 363A, 1993

### Glutamine metabolism

Effects of glutamine feeding on plasma and muscle glutamine levels and on glutamine synthetase activity and glutamine release in the rat 52, 69A, 1993

The effect of surgery and growth hormone suppression on plasma muscle and glutamine levels 52, 70A, 1993

[15N] and [14C]glutamine fluxes across rabbit ileum in experimental bacterial diarrhoea

**52,** 193A, 1993

The effect of enteral glutamine deprivation on rat gut mucosa during a systemic injury response 52, 259A, 1993

# Glutathione peroxidase (EC 1.11.1.9)

Selenium and glutathione peroxidase status in preterm infants in a low Se area

52, 221A, 1993

### Glycaemia

Fats decrease gastric emptying rate and reduce post-prandial glycaemia 52, 199A, 1993

#### Glycinin

Soya-bean glycinin and β-conglycinin resistance to digestion in the preruminant calf

52, 140A, 1993

### Glycolysis

The naturally-occurring dietary flavonoid quercetin: *in vitro* investigation of its effects on glycolytic flux 52, 95A, 1993

Rapid modulation of lactate utilization by inhibition of glycolysis in isolated hepatocytes from fed rats 52, 163A, 1993

#### Glycoprotein

Developmental changes in intestinal glycoprotein glycosylation; relationship with diet changes at weaning and hormonal variations

52, 189A, 1993

#### Goblet cells

Effects of inulin on goblet cell distribution and mucin type in the hindgut of heteroxenic rats 52, 146A, 1993

#### Goitre

Factors contributing to goitre in pregnant women in Bangladesh 52, 324A, 1993

#### Growth

Some aspects of the biology of feeding and growth in fish 52, 403, 1993

Effects of potassium depletion and repletion on growth and resting energy expenditure in the growing rat 52, 66A, 1993

Differential effects of epidermal growth factor and transforming growth factor- $\alpha$  on gastrointestinal epithelial cell proliferation

**52**, 185A, 1993

The effect of pattern of nutrient supply during lamb growth on the digestive tract proportions 52, 188A, 1993

Growth factors in colostrum: receptor localization and stimulation of phosphorylation in microvillar membranes of neonatal pigs

**52,** 213A, 1993

Reduced head growth from the second trimester of pregnancy to age 2 years: implication for health in adulthood **52,** 216A, 1993

Chronic lung disease, dexamethasone and linear growth in neonates 52, 225A. 1993

The effect of dietary lipid manipulation on food intake, weight gain and tissue weights of rats

**52,** 267A, 1993 iscle fibre area and

Energy restriction affects muscle fibre area and distribution selectively during growth

**52**, 298A, 1993

The energy intakes of growing canaries

**52,** 299A, 1993

#### **Growth hormone**

The effect of surgery and growth hormone suppression on plasma muscle and glutamine levels 52, 70A, 1993

Energy intakes and resting energy expenditure in children of short stature and those receiving growth hormone 52, 98A, 1993

Stimulation of calcium absorption in growing pigs treated for 2 months with porcine growth hormone (GH) 52, 191A, 1993

Human growth hormone improves body-weight but not disease activity in a chronic model of colitis 52, 255A, 1993

Unilateral intramammary infusion of GH does not support a local galactopoietic action of growth hormone in goats 52, 278A, 1993

The interaction between plane of nutrition and response to growth hormone on fat and protein metabolism in cattle **52**, 301A, 1993

#### Growth regulation

Micronutrients and longitudinal growth

Postnatal growth of gut and muscle: competitors or collaborators 52, 57, 1993
Energy partitioning, tissue growth and appetite control 52, 69, 1993

### Guar gum

Microscopical location of guar galactomannan in mid-jejunal biopsies from the pig: potential long-term immunological implications

52, 285A, 1993
The use of microscopy in the evaluation of the relationship between guar galactomannan and starch in guar wheat bread: subsequent physio-logical in the start of the start o

logical implications in the pig 52, 286A, 1993 Effect of the addition of guar gum to an acute test meal on post-prandial lipaemia in healthy young adults 52, 288A, 1993

The effect of two types of guar gum in solid and liquid foods on postprandial blood glucose, plasma insulin and C-peptide in obese subjects **52**, 378A, 1993

### Gut microflora

Manipulation of the gut microflora: experimental approach in animals 52, 345, 1993

Manipulation of the human gut microflora

52, 357, 1993
Maintaining the patterns of human milk-induced gut microflora after supplementary feeding of beikost 52, 121A, 1993

Metabolic characteristics of isolated colonocytes: modulation by dietary fibre or by the colonic microflora **52**, 133A, 1993

Effects of inulin on goblet cell distribution and mucin type in the hindgut of heteroxenic rats 52, 146A, 1993

Contribution of intestinal microflora to lysine requirements in non-ruminants

52, 153A, 1993 Adaptation of the exocrine pancreas to highprotein diet in germ-free and conventional rats 52, 168A, 1993

Contribution of intestinal microflora to lysine requirements in rats 52, 368A, 1993

### Hair follicles

Response of secondary hair follicles of the Cashmere goat to prolactin *in vitro*.

52, 263A, 1993

#### Heart cells

Effect of cholesterol feeding on DNA damage in hamster heart cells 52, 374A, 1993

### Heat exposure

Metabolic and endocrine changes induced by heat exposure in chickens 52, 165A, 1993

### Heat treatment

Effect of heat treatment and enzyme supplementation of barley-based diets on performance of broiler chicks 52, 50A, 1993

# Hepatic drug metabolism

Hepatic drug-metabolizing enzymes in spontaneously obese hyperglycaemic (ob/ob) mice 52, 43A, 1993

## Hepatic metabolism

Vitamin A levels in a sample of Irish animal livers 52, 58A, 1993

Nitrogen metabolism across the liver of growing steers fed a high nitrogen grass pellet diet 52, 105A, 1993

The ontogenic development of the active form of hepatic pyruvate dehydrogenase (EC 1.2.4.1) during the sucking-weaning transition

52, 174A, 1993
The effect of increased ammonia supply on postprandial hepatic metabolism in growing steers
fed either forage or cereal-based diets

**52,** 295A, 1993

### Hepatocytes

Rapid modulation of lactate utilization by inhibition of glycolysis in isolated hepatocytes from fed rats 52, 163A, 1993

### High-performance liquid chromatography

Analytical characterization by reverse-phase HPLC of products obtained by *in vitro* enzymic hydrolysis of whey proteins with gastric and pancreatic proteases

**52**, 148A, 1993

### Histamine<sub>2</sub> antagonists

Preventing steroid-associated gastric perforation with histamine<sub>2</sub> antagonists **52**, 219A, 1993

# Histology

Histological consequences of different surgical procedures for ileorectostomy in pigs

**52**, 182A, 1993

#### HIV infection

Causes of weight loss in Human Immunodeficiency Virus infection 52, 3A, 1993 Patterns of weight change in stage IV HIV infection 52, 246A, 1993

### Homocysteinaemia

Serum antioxidants and malondialdehyde in homocysteinaemics with coronary heart disease, non-homocysteinaemics with coronary heart disease, and normal control subjects 52, 73A, 1993

### Hospital food

Assessment of nutritional status of hospitalized general surgical patients in Ibadan, Nigeria

52, 46A, 1993

### **Human nutrition**

Marine oils: metabolic effects and role in human nutrition 52, 457, 1993

### Hybridization probes

Ribosomal DNA-targeted hybridization probes for the detection, identification and quantitation of anaerobic rumen fungi

52, 176A, 1993

### Hydrogen

Enumeration of bacteria forming acetate from H<sub>2</sub> and CO<sub>2</sub> and other H<sub>2</sub>-utilizing microorganisms from the digestive tract of animals and man **52**, 117A, 1993

Competition for hydrogen between methanogenesis and hydrogenotrophic acetogenesis in human colonic flora studied by <sup>13</sup>C NMR

**52**, 118A, 1993

# Hypercholesterolaemia

Effect of baked beans on steroid metabolism of hypercholesterolaemic pigs 52, 164A, 1993
The effects of psyllium on blood lipids in hypercholesterolaemic subjects 52, 371A, 1993

Hyperketonaemia

The metabolic effects of acute hyperketonaemia on whole body and forearm glucose disposal 52, 281A, 1993

#### Hypertension

In utero exposure to maternal low-protein diets induces hypertension in rats 52, 274A, 1993

Hypothyroidism

Effect of hypothyroidism on insulin-like growth factor (IGF-1) status in the postnatal lamb

**52,** 276A, 1993

### **Ileal integrity**

Effects of polymer feeds on ileal integrity as assessed by diamine oxidase release

52, 74A, 1993

#### Ileorectostomy

Histological consequences of different surgical procedures for ileorectostomy in pigs

**52,** 182A, 1993

#### Ileostomy

Amino acid losses in ileostomy fluid on a proteinfree diet 52, 147A, 1993

### Immune function

Nutrition and the immune system 52, 77, 1993 The immunological effects of trauma

52, 85, 1993
The effects of lipids on some aspects of the

The effects of lipids on some aspects of the cellular immune response 52, 91, 1993 Iron, infection and immune function

**52,** 165, 1993

Immunological function in copper deficiency

52, 28A, 1993
Effects of glutamine feeding on plasma and muscle glutamine levels and on glutamine synthetase activity and glutamine release in the rat

52, 69A, 1993

Undernutrition in drug addicts. Immunological study 52, 261A, 1993

Microscopical location of guar galactomannan in mid-jejunal biopsies from the pig: potential long-term immunological implications

52, 285A, 1993

The effect of dietary lipid manipulation on the natural killer cell activity of rat lymphocytes 52, 287A, 1993

#### Inflammatory bowel disease

Adipose tissue profiles in inflammatory bowel disease 52, 5A, 1993

Increased TNF production does not correlate with cachexia in chronic inflammatory bowel disease 52,71A, 1993

# Inflammatory response

Vitamin E status modulates the inflammatory response to endotoxin in rats 52, 84A, 1993

Dietary lipids modulate the physicochemical characteristics of rat hepatocyte plasma membranes 52, 318A, 1993

#### Infancy

Plasma ascorbic acid and dehydroascorbic acid levels in very low-birth weight infants

52, 77A, 1993

Tyrosine metabolism in premature babies: effects of vitamin C intake 52, 78A, 1993

Lactose digestion in breast-fed Gambian infants **52,** 101A, 1993

Iron deficiency in Asian toddlers and the failure of progression of the weaning process

Perirenal adipose tissue development in artificially- and ewe-reared lambs over the first

month of life 52, 104A, 1993
Does a maternal milk-free diet prevent allergy in

the 'at-risk' infant? 52, 217A, 1993 Nutritional composition (by chemical analysis) of home-prepared weaning foods for infants

**52,** 384A, 1993

### Infection

Iron, infection and immune function

**52,** 165, 1993

Influence of illness on serum retinol of children in northern Ghana 52, 64A, 1993

### Insulin

Influence of the weaning diet on the changes of glucose metabolism and of insulin sensitivity 52, 325, 1993

Glucagon-like peptide-1<sub>(7-36)</sub> amide and glucosedependent insulinotropic polypeptide in the hyperinsulinaemia of obese hyperglycaemic (ob/ob) mice 52, 38A, 1993

The chronic and acute effects of tryptophan (TRP) on hormones of the enteroinsular axis

**52,** 130A, 1993

Insulin and intestinal epithelial cell proliferation 52, 186A, 1993

Normal pregnancy: a state of insulin resistance? Studies with the euglycaemic clamp

**52,** 215A, 1993

Concentrations of serum cortisol, insulin and blood glucose in dairy cows fed on diets with different amounts of concentrate and roughage 52, 363A, 1993

### Insulin-like growth factor 1

Effect of pea intake on bone protein synthesis and immunoreactive IGF 52, 139A, 1993

Effect of hypothyroidism on insulin-like growth factor (IGF-1) status in the postnatal lamb **52**, 276A, 1993 Interleukins Interleukin-2 and T-lymphocytes in mice fed on a legume diet **52,** 135A, 1993 Short-term parenteral feeding does not mitigate the decrease in albumin synthesis rates induced by interleukin-1ß or turpentine injec-52, 231A, 1993 tion in the rat The effect of nutritional status on interleukin-6 response to elective surgery 52, 232A, 1993 The influence of interleukin-6 (IL-6) and dietary lipids on total protein synthesis rates in cul-52, 337A, 1993 tured rat hepatocytes effect of peripheral interleukin-18 administration on macronutrient selection in 52, 358A, 1993 the rat Intestinal epithelium Differential effects of epidermal growth factor and transforming growth factor-α on gastrointestinal epithelial cell proliferation 52, 185A, 1993 Insulin and intestinal epithelial cell prolifer-52, 186A, 1993 Molecular isolation of genes expressed in the differentiated epithelium of the pig small 52, 187A, 1993 Innlin Effects of inulin on goblet cell distribution and mucin type in the hindgut of heteroxenic 52, 146A, 1993 Effect of inulin on the fermentation profile in rats associated with human flora from low-, high-**52,** 154A, 1993 and non-methane producers Iodothyronine 5'deiodinase Maternal manipulation of iodothyronine 5'deiodinase activity in the ovine foetus 52, 300A, 1993 Iron Iron, infection and immune function **52,** 165, 1993 Effect of myofibrillar muscle proteins on in vitro 52, 21A, 1993 biolysability of iron Effect of tannic acid on iron and zinc absorption from a model food system in sucking rats

The effect of dietary fibres on iron and zinc absorption in sucking rats 52, 23A, 1993

Iron deficiency in Asian toddlers and the failure of progression of the weaning process

**52,** 103A, 1993

An assessment of the iron status of a sample of normal, healthy, 1-year-old children

**52,** 333A, 1993

Isotope labelling

Assessment of exchangeable pools of zinc using the stable isotope 70zinc 52, 24A, 1993 Competition for hydrogen between methanogenesis and hydrogenotrophic acetogenesis in human colonic flora studied by 13C NMR

Tracer investigation of taurine metabolism in cats 52, 129A, 1993

The behaviour of Co-EDTA- and Yt-labelled hay in the gastrointestinal tract of sheep

52, 178A, 1993

[1-13C] Leucine uptake into the portal vein of sheep receiving exogenous glucose intravascularly or intraduodenally 52, 192A, 1993

[15N] and [14C]glutamine fluxes across rabbit ileum in experimental bacterial diarrhoea

52, 193A, 1993

The recovery of labelled carbon dioxide in pregnant subjects 52, 247A, 1993

Non-linear incorporation of tracer into nonalbumin plasma protein as a result of a flooding dose of leucine 52, 250A, 1993

Collagen synthesis in human bone measured using stable isotope-labelled alanine and proline 52, 258A, 1993

New analytical techniques and considerations for measuring <sup>13</sup>C-labelled amino acids at submicro molar levels **52**, 303A, 1993

Urea kinetics in free-living female vegetarians measured with a single-dose method

Methodological considerations of <sup>13</sup>C breath studies **52,** 365A, 1993

The bio-availability of a <sup>13</sup>C labelled dietary fatty acid in healthy adults **52**, 366A, 1993

Contribution of intestinal microflora to lysine requirements in rats 52, 368A, 1993

#### Lactate

Chronic undernutrition in pregnancy and lactation 52, 19, 1993

Effect of diet and stage of lactation on milk composition in rats. 52, 100A, 1993

Lactose digestion in breast-fed Gambian infants

52, 101A, 1993
Rapid modulation of lactate utilization by inhibition of glycolysis in isolated hepatocytes from fed rats 52, 163A, 1993

Unilateral intramammary infusion of GH does not support a local galactopoietic action of growth hormone in goats 52, 278A, 1993

#### Lactos

Lactose digestion in breast-fed Gambian infants 52, 101A, 1993

#### Lactulose

Adaptation to two doses of lactulose by human colonic flora in continuous culture

**52,** 156A, 1993

### Laparascopic cholecystectomy

Metabolic and inflammatory changes following laparoscopic cholecystectomy **52**, 254A, 1993

### Leaf concentrate

Supplementing meals with leaf concentrate in Sri Lankan nursery schools: impact on anthropometric status 52, 99A, 1993

#### Learning

'Malnutrition, Learning and Behavior': 25 years on from the MIT Symposium 52, 189, 1993

### Legumes

Nutritional value of lentil and effect of cooking

on free amino acid tissue concentrations of growing rats 52, 132A, 1993 Interleukin-2 and T-lymphocytes in mice fed on a legume diet **52,** 135A, 1993 Pancreas enlargement induced in rats by longterm consumption of dietary legume proteins **52,** 137A, 1993 Leucine

Non-linear incorporation of tracer into nonalbumin plasma protein as a result of a flooding dose of leucine 52, 250A, 1993

### Leukaemia

Weight-for-height influences outcome in childhood leukaemia **52,** 96A, 1993

### γ-Linoleic acid

Effect of oral administration of an oil enriched in y-linolenic acid in platelet aggregation and lipid composition in alcoholic patients during withdrawal **52**, 196A, 1993

### y-Linolenic acid

Infusion of the lithium salt of  $\gamma$ -linolenic acid into pancreatic cancer patients increases thymidine uptake and induces tumour necrosis factor release by peripheral blood mononuclear cells 52, 244A, 1993

### Lipid emulsions

The effects of lipids on some aspects of the cellular immune response **52,** 91, 1993

### Lipid infusion

The respective roles of gastric distension and intestinal nutrients in the induction of postprandial sensations **52,** 292A, 1993

### Lipid metabolism

Postprandial lipid and lipoprotein response to a fish-oil test meal 52, 39A, 1993

### Lipid peroxidation

Antioxidant protection of the anoxicreoxygenated heart 52, 62A, 1993 Indices of lipid peroxidation in the heart of vitamin E-deficient pigs with or without supplementation with polyunsaturated fatty acids **52**, 81A, 1993

Lipid peroxidation and ultraviolet-B erythemal responses in patients consuming fish oil **52,** 317A, 1993 supplements

Antioxidant vitamin status, lipid peroxidation, and indices of nitric oxide production in patients with sepsis and secondary organ dysfunction 52, 334A, 1993

### Lipogenesis

hormone-stimulated rates of lipogenesis in liver and adipose tissue of rats fed on corn oil and fish oil diets 52, 51A, 1993

### Lipoprotein

Measurement of apolipoprotein B-48 with a novel specific antibody reveals two postprandial peaks of intestinal origin **52**, 289A, 1993

### Lipoprotein lipase (EC 3.1.1.34)

The effect of dietary fatty acid composition on mRNA for lipoprotein lipase in the rat **52,** 49A, 1993

The effect of test meal fatty acid composition on postprandial triacylglycerol and lipoprotein

lipase responses in normal subjects

52, 283A, 1993

### Lipoprotein metabolism

Moderate exercise prior to ingestion of a high-fat meal decreases postprandial lipidaemia.

**52,** 128A, 1993

Effect of progressive enrichment on monounsaturated fatty acids (MUFA) in the diet on serum lipids, lipoproteins and fatty acids in normolipidemic males **52,** 197A, 1993

Influence of ethyl myristate, palmitate and oleate on plasma lipoprotein metabolism in the 52, 364A, 1993 hamster

#### Liver disease

Superior absorption of medium chain triacylglycerols compared with conventional dietary long-chain fats in children with chronic liver 52, 253A, 1993

### Liver transplantation

Antioxidant status during liver transplan-52, 316A, 1993 tation

#### Lung disease

Resting energy expenditure with the ventilated hood and mouthpiece systems in patients with chronic lung disease **52,** 6A, 1993

Proteins from different cultivars and varieties of lupins resistant to in vitro rumen digestion

52, 180A, 1993

### Lymphocytes

The effect of triacylglycerols on lymphocyte proliferation **52,** 55A, 1993

The effect of dietary lipid manipulation on the activity natural killer cell of lymphocytes 52, 287A, 1993

The effect of dietary lipid manipulation on lymphocyte proliferation 52, 375A, 1993

Variations in the formulation of commerciallyavailable oral rehydration solutions intended for use in the treatment of diarrhoea

**52,** 379A, 1993

### Lymphokines

Alteration by lymphokines of the epithelial function and barrier capacity of the human colon carcinoma cell line HT29-C119A

52, 134A, 1993

### Lysine

Contribution of intestinal microflora to lysine requirements in non-ruminants

**52,** 153A, 1993

Bioavailability and pharmacokinetics of synthetic lysine (LYS) and methionine (MET) in pigs

52, 172A, 1993

Contribution of intestinal microflora to lysine requirements in rats 52, 368A, 1993

### Masai

Does chronic undernutrition in adult Masai influence morbidity and survival?

52, 107A, 1993

### Macronutrients

The digestibility of macronutrients in the growing 52, 275A, 1993 domestic cat

Acute effect of peripheral interleukin-1β administration on macronutrient selection in the rat 52, 358A, 1993

### Magnesium

Effect of lipid supply in the diet of cows on calcium and magnesium pools in the rumen 52, 151A, 1993

#### Maize oil

Modulation of the response of rats to endotoxin by butter, olive oil and corn oil 52, 68A, 1993 Modulation of the response of rats to endotoxin by butter, olive oil and corn oil

52, 227A, 1993

Modulatory effects of olive and maize oils and butter on the response of protein synthesis in liver, lung, kidney to endotoxin in rats

**52,** 336A, 1993

#### Malabsorption

D-Xylose absorption test for malabsorption in tapeworm-infected sheep 52, 142A, 1993

### Malaria

Phospholipid-2-9,12,15-linolenic acid in Gambian children with Plasmodium falciparum malaria 52, 10A, 1993

### Malnutrition

Aid programmes for malnutrition and the role of the nutritionist 52, 175, 1993

'Malnutrition, Learning and Behavior': 25 years on from the MIT Symposium 52, 189, 1993

Some aspects of the long-term effects of malnutrition on the behaviour of children in the Third World 52, 201, 1993

Breast-feeding and other prognostic factors among malnourished children admitted for diarrhoea in a Madagascar hospital

52, 202A, 1993

#### Maternal diet

Maternal diet and social class in the East End of London 52, 18A, 1993

### Meal characteristics

The effect of meal size on the cardiovascular responses to food ingestion 52, 37A, 1993

# Meat products

Cholesterol oxidation in porcine muscle as influenced by pig diet 52, 54A, 1993

### Membrane

Diversity of membrane sialo-glycoconjugates in the developing porcine small intestine

52, 195A, 1993

Fish oil supplementation changes membrane fluidity and phospholipid profiles in humans 52, 269A, 1993

### Menstrual cycle

Urea kinetics in healthy young women

**52**, 88A, 1993

### Message construction

Positive and negative message constructions in nutrition education 52, 357A, 1993

# Metabolic acidosis

The correction of metabolic acidosis in chronic renal failure reduces whole-body protein breakdown and amino acid oxidation

52, 257A, 1993

#### Metabolic adaptation

Chronic undernutrition and metabolic adaptation 52, 267, 1993

#### Metabolic rate

Reported energy intakes and basal metabolic rates of normal healthy children aged 5-15 years 52, 97A, 1993

#### Metabolic responses

Marine oils: metabolic effects and role in human nutrition 52, 457, 1993

Effects of a 4-week dietary fat feeding trial on the metabolic responses to tumour necrosis factor α in rats 52, 67A, 1993

Effects of glycine and arginine supplementation on the metabolic response to tumour necrosis factor in rats fed low-protein diets

**52,** 90A, 1993

Metabolic and endocrine changes induced by heat exposure in chickens 52, 165A, 1993

Metabolic features of multiple organ failure

Metabolic and hormonal effects of hyperglycaemic glucose clamping in multiple organ failure 52, 235A, 1993

Metabolic effects of 3 h infusion of dopamine at 2 μg and 5 μg/min per kg 52, 249A, 1993

Metabolic and inflammatory changes following laparoscopic cholecystectomy 52, 254A, 1993

Effects of endotoxin on metabolic responses of rats fed with olive and maize oils and butter 52, 340A, 1993

# Metabolizable energy

Effect of wheat bushel weight and enzyme supplementation on the apparent metabolisable energy content of diets and on broiler performance 52, 360A, 1993

### Methane

Effect of inulin on the fermentation profile in rats associated with human flora from low-, high- and non-methane producers 52, 154A, 1993

### Methionine

Bioavailability and pharmacokinetics of synthetic lysine (LYS) and methionine (MET) in pigs 52, 172A, 1993

Effect of dietary methionine concentration on plasma free amino acid levels in genetically lean and fat chickens 52, 173A, 1993

### Microbial activity

Manipulation of the gut microflora: experimental approach in animals 52, 345, 1993 Manipulation of the human gut microflora

**52,** 357, 1993

Factors affecting fermentation reactions in the large bowel 52, 367, 1993

Interactions between nutrition and the intestinal microflora 52, 375, 1993

Involvement of sugar composition of dietary fibre in formation of short-chain fatty acids during in vitro fermentation with human microflora

**52,** 116A, 1993

Enumeration of bacteria forming acetate from H<sub>2</sub> and CO<sub>2</sub> and other H<sub>2</sub>-utilizing microorganisms from the digestive tract of animals and man 52, 117A, 1993

Growth of bifidobacteria in continuous culture Factors affecting the freezing point depression of 52, 125A, 1993 52, 264A, 1993 High bacterial counts in the proximal small Calcium absorption from cow's milk and soya intestine: an unexpected finding in normal cats milks in young rats **52,** 273A, 1993 52, 126A, 1993 Mineral supplementation Distribution and post-prandial variations of the Small-intestinal absorption of minerals during activity of polysaccharide-degrading enzymes enteral feeding supplemented with a soyain rumen micro-organisms **52,** 150A, 1993 bean polysaccharide and soya-bean oligo-Adaptation to two doses of lactulose by human saccharide fibre **52,** 241A, 1993 colonic flora in continuous culture **MONICA** studies 52, 156A, 1993 Fish consumption in North Glasgow: results from The effect of sucrose fatty esters on metabolism the MONICA studies of 1986 and 1989 of human faecal bacteria 52, 160A, 1993 52, 270A, 1993 Effects of phenolic acids on ruminal proteolytic Morbidity bacteria 52, 179A, 1993 Does chronic undernutrition in adult Masai Colon simulation technique as an in vitro model influence morbidity and survival? 52, 107A, 1993 to study the effects of diet on microbial production of enzymes potentially involved in Motor patterns colon cancer 52, 183A, 1993 Short-chain fatty acids (SCFA) and colonic Antimicrobial activity and long-term use of motility: influence on segmental motor Taurolin as an additive to parenteral nutrition patterns 52, 152A, 1993 Short-chain fatty acids (SCFA) and colonic 52, 245A, 1993 Micronutrients motility: influence on propulsive motor Micronutrients and longitudinal growth patterns **52,** 198A, 1993 **52,** 49, 1993 Multiple organ failure Vitamin undernutrition **52,** 143, 1993 Metabolic features of multiple organ failure Micronutrient undernutrition in British school-52, 233A, 1993 children 52, 155, 1993 Manipulation of glucose utilization in multiple The chemistry of aluminium in the gastroorgan failure using somatostatin intestinal lumen and its uptake and absorption 52, 234A, 1993 **52,** 241, 1993 Metabolic and hormonal effects of hypergly-Micronutrient deficiencies in the preterm caemic glucose clamping in multiple organ **52**, 285, 1993 neonate failure **52**, 235A, 1993 A conceptual approach to the determination of 24h energy expenditure patterns in multiple upper safe limits for the consumption of **52**, 306A, 1993 organ failure micronutrients 52, 59A, 1993 Muscle plasma membrane Effects of iodine and retinol supplementation on Stability of vitamin E-deficient muscle plasma thyroid function in pre-school children in the membrane **52,** 82A, 1993 Morogoro Region of Tanzania 52, 60A, 1993 Myofibrillar muscle proteins Risk factors for intra-uterine growth retardation Effect of myofibrillar muscle proteins on in vitro in Campinas, Brazil biolysability of iron 52, 21A, 1993 52, 65A, 1993 Responses to riboflavin and multinutrient supplements by Gambian school children 52, 331A, 1993 N metabolism Nutrition and migration: people on the move steers fed a high nitrogen grass pellet diet **52,** 265, 1993 **52,** 105A, 1993

#### Milk

Effect of diet and stage of lactation on milk composition in rats. 52, 100A, 1993 Nutrient intakes in a group of self-reported milk **52,** 110A, 1993 allergy subjects. Maintaining the patterns of human milk-induced gut microflora after supplementary feeding of 52, 121A, 1993 Pancreatic nutritional adaptation in calves: effect of pea flour incorporation in the milk 52, 145A, 1993 substitute Nutritive value of goat's and cow's milk crude protein and ileal digestibility of their amino

52, 204A, 1993 acids by the growing pig Does a maternal milk-free diet prevent allergy in the 'at-risk' infant? 52, 217A, 1993

Nitrogen metabolism across the liver of growing

Soya-bean glycinin and β-conglycinin resistance to digestion in the preruminant calf

52, 140A, 1993

#### National survey

Ireland: a comparison of food and nutrient trends in the national surveys **52,** 17A, 1993

### Neonate

Micronutrient deficiencies in the preterm **52,** 285, 1993 neonate

Establishment of Bifidobacterium bifidum in the intestine of human neonates: relationship with the bifidus-factors found in the stools

52, 120A, 1993

Differential effects of dietary proteins on protein synthesis activity in several tissues of newborn 52, 131A, 1993 lambs

Programming of expression of disaccharidases in the neonatal small intestine: use of a xenograft **52**, 210A, 1993 Retinol administration in neonates: are we giving **52**, 222A, 1993 enough? Postnatal changes in bone mineral content in 52, 223A, 1993 preterm infants The significance of n-3 fatty acids in fetal and neonatal development and some alternative **52,** 224A, 1993 Chronic lung disease, dexamethasone and linear growth in neonates **52,** 225A, 1993 Utilization of intravenous fat in the surgical newborn infants **52**, 237A, 1993 The effect of glucose intake on substrate utilization and energy expenditure in the surgical **52**, 238A, 1993 newborn infant Neuropeptide Y Neuropeptide Y is increased in appetiteregulating hypothalamic areas of lactating rats **52**, 218A, 1993 Nitric oxide Antioxidant vitamin status, lipid peroxidation, and indices of nitric oxide production in patients with sepsis and secondary organ dysfunction **52**, 334A, 1993 Non-starch polysaccharides The effect of non-starch polysaccharide on bacterial contribution to faecal mass **52.** 41A. 1993 The intestinal adaptive response of the rat to soluble non-starch polysaccharides is partially dependent on dietary fat 52, 119A, 1993 The adaptive response of the alimentary tract of the rat to soluble non-starch polysaccharide (NSP) components of oats **52,** 124A, 1993 Quantitative assessment of the effect of nonstarch polysaccharides on nutrient absorption in the pig: use of a transit time ultrasound flow **52**, 200A, 1993 The effect of two Nigerian feeds containing nonstarch polysaccharides on postprandial blood glucose and insulin levels in healthy subjects **52,** 377A, 1993 Nutrient absorption Net absorption of low molecular weight peptides by the mesenteric- and portal-drained viscera **52,** 190A, 1993 Quantitative assessment of the effect of nonstarch polysaccharides on nutrient absorption in the pig: use of a transit time ultrasound flow probe **52,** 200A, 1993 **Nutrient balance** The influence of acetate and nutrient balance on ouabain-sensitive respiration in ovine liver

Effects of processing and feed enzymes on nutrient digestibility in diets for weaned pigs 52, 211A, 1993

#### Nutrient intake

Eating habits, nutrient intake and growth in pre-school children 52, 11A, 1993
Ireland: a comparison of food and nutrient trends in the national surveys 52, 17A, 1993
Increased albumin synthesis in healthy volunteers with feeding 52, 91A, 1993
Nutrient intakes in a group of self-reported milk allergy subjects. 52, 110A, 1993

The effect of pattern of nutrient supply during lamb growth on the digestive tract proportions 52, 188A, 1993

The interaction between plane of nutrition and response to growth hormone on fat and protein metabolism in cattle 52, 301A, 1993

A comparison of nutrient intakes and activity levels in female aerobics instructors and beginners 52, 308A, 1993

Nutrient intakes and breakfast cereal consumption habits of British schoolchildren

**52**, 322A, 1993

A comparison between the nutrient content of school lunches and recommendations

**52,** 326A, 1993

An initial assessment of food and nutrient intake for the development of a food frequency questionnaire for use in an Afrocaribbean population sample 52, 328A, 1993

### **Nutrient utilization**

Nutritional supply of proteins and absorption of their hydrolysis products: consequences on metabolism 52, 335, 1993

### Nutrition education

Aid programmes for malnutrition and the role of the nutritionist 52, 175, 1993

Persuasive power of nutritional messages

enhanced by positive and non-technical language 52, 15A, 1993

The plate model for dietary education

The place of nutrition in the general practice consultation: a pilot study
Dietary knowledge and practice of nutritional supplement users.

Positive and negative message constructions in nutrition education

52, 19A, 1993
general practice of nutritional supplement users.

52, 111A, 1993
constructions in 52, 357A, 1993

# **Nutrition information**

Nutrition information **52,** 263, 1993

### **Nutrition supplementation**

Dietary knowledge and practice of nutritional supplement users. 52, 111A, 1993

### Nutritional composition

Nutritional composition (by chemical analysis) of home-prepared weaning foods for infants

**52,** 384A, 1993

The nutrient contribution of weekday lunch in 7 to 8-year-old children 52, 385A, 1993

# **Nutritional regulations**

52, 56A, 1993

**52,** 315, 1993

**52,** 205A, 1993

Molecular aspects of enzyme synthesis in the exocrine pancreas with emphasis on development and nutritional regulation 52, 301, 1993

Dietary regulation of intestinal nutrient carriers

Nutrient digestibility and energy use in growing

**Nutrient carriers** 

Nutrient digestibility

medium breed puppies

Nutritional requirements of fish 52, 417A, 1993 Nutritional status

Nutrition and the immune system 52, 77, 1993

Nutrition and health in the developing world: the Caribbean experience 52, 183, 1993

Nutrition and migration: people on the move

Micronutrient deficiencies in neonate 52, 265, 1993 the preterm 52, 285, 1993

Dietary regulation of intestinal nutrient carriers 52, 315, 1993

Interactions between nutrition and the intestinal microflora 52, 375, 1993

Assessment of nutritional status of hospitalized general surgical patients in Ibadan, Nigeria

Anthropometric measurements in elderly orthopaedic patients: 6-month follow-up of high- and low-nutritional risk groups

The effect of nutritional status on interleukin-6 response to elective surgery 52, 232A, 1993 Dietary compliance and changes in the nutritional status of chronic renal failure patients on con-

ventional low-protein diet 52, 239A, 1993
Nutritional assessment in patients on home parenteral nutrition; objective measurements or clinical judgement? 52, 243A, 1993

Nutritional supplementation

The use of nutritional supplements in female high exercisers 52, 311A, 1993

Nutritional surveillance

A conceptual approach to the determination of upper safe limits for the consumption of micronutrients 52, 59A, 1993

### **Nutritive** value

The nutritive value of different wheat varieties for poultry 52, 206A, 1993

#### Oats

The adaptive response of the alimentary tract of the rat to soluble non-starch polysaccharide (NSP) components of oats 52, 124A, 1993

#### Obesity

Effect of chronic energy deprivation on 24 h activity of lean and obese mice 52, 33A, 1993

Glucagon-like peptide-1<sub>(7-36)</sub> amide and glucosedependent insulinotropic polypeptide in the hyperinsulinaemia of obese hyperglycaemic (ob/ob) mice 52, 38A, 1993

Hepatic drug-metabolizing enzymes in spontaneously obese hyperglycaemic (ob/ob) mice 52, 43A, 1993

Energy cost of activity in normal weight and obese women 52, 279A, 1993

The metabolic and cardiovascular responses to infused adrenaline in lean and obese subjects 52, 304A, 1993

Evidence that fat oxidation is modulated by fat intake in lean but not in obese women

52, 310A, 1993 Obesity as an adaptation to a high-fat diet: evidence from a cross-sectional study

**52**, 367A, 1993

Hypocaloric treatment of obese type 2 diabetics 52, 369A, 1993

The effect of two types of guar gum in solid and liquid foods on postprandial blood glucose, plasma insulin and C-peptide in obese subjects 52, 378A, 1993

The prevalence of overweight and obesity in different fat and sugar consumption groups 52, 383A, 1993

### Obituary

Obituary notice, R. A. McCance (1898–1993) **52**, 383, 1993

#### Oesophageal pH

Change in oesophageal pH: what does it tell us about gastro-oesophageal reflux in preterm infants? 52, 220A, 1993

#### Oleic acid

Esterification of oleic and arachidonic acids in mouse jejunum 52, 161A, 1993

#### Olive oil

Modulation of the response of rats to endotoxin by butter, olive oil and corn oil 52, 68A, 1993 Modulation of the response of rats to endotoxin by butter, olive oil and corn oil

**52**, 227A, 1993

Modulatory effects of olive and maize oils and butter on the response of protein synthesis in liver, lung, kidney to endotoxin in rats

52, 336A, 1993

Effects of endotoxin on metabolic responses of rats fed with olive and maize oils and butter 52, 340A, 1993

### Oral rehydration solutions

Variations in the formulation of commerciallyavailable oral rehydration solutions intended for use in the treatment of diarrhoea

**52,** 379A, 1993

# Oxygen consumption

Oxygen consumption during the acute phase of burn injury in infants and children

52, 4A, 1993

#### **Pancreas**

Molecular aspects of enzyme synthesis in the exocrine pancreas with emphasis on development and nutritional regulation 52, 301, 1993

Pancreas enlargement induced in rats by longterm consumption of dietary legume proteins 52, 137A, 1993

Antigen specificity and cross-reactivity of fifteen monoclonal antibodies against porcine pancreatic α-amylase II, and its AB and C domains 52, 143A, 1993

Response of pancreatic lipase to graded levels of dietary tallow in the weaned piglet

**52,** 144A, 1993

Pancreatic nutritional adaptation in calves: effect of pea flour incorporation in the milk substitute 52, 145A, 1993

Kinetics of the adaptation of rat pancreatic hydrolases to a high-protein diet containing soya bean and fish 52, 167A, 1993

Adaptation of the exocrine pancreas to highprotein diet in germ-free and conventional rats 52, 168A, 1993

Pharmacological and biochemical evidence for differential expression of A- and B-subtype CCK-gastrin receptors in the calf pancreas during development 52, 169A, 1993

Long-chain triacylglycerol malabsorption and pancreatic function in children with proteinenergy malnutrition complicating severe liver disease 52, 252A, 1993

### Pancreatic disease

An acute-phase protein response is associated with increased resting energy expenditure in weight-losing patients with either benign or malignant pancreatic disease 52, 240A, 1993

#### Parasite infestation

The impact of gastrointestinal parasites on protein-energy malnutrition in man

**52**, 101, 1993

Interactions between parasites and animal nutrition: the veterinary consequences

**52,** 113, 1993

Metabolic consequences of intestinal parasitism 52, 121, 1993

The effect of subclinical parasitism with *Tricho*strongylus colubriformis on the diet selection of growing sheep **52,** 353A, 1993

#### Parenteral nutrition

Short-term parenteral feeding does not mitigate the decrease in albumin synthesis rates induced by interleukin-1β or turpentine injection in the rat 52, 231A, 1993

Nutritional assessment in patients on home parenteral nutrition; objective measurements or clinical judgement? 52, 243A, 1993

Antimicrobial activity and long-term use of Taurolin as an additive to parenteral nutrition 52, 245A, 1993

### Pea flour

Effect of pea intake on bone protein synthesis and immunoreactive IGF 52, 139A, 1993

Pancreatic nutritional adaptation in calves: effect of pea flour incorporation in the milk

# substitute Perimenopausal women

Dietary factors and vertebral bone density in perimenopausal women from a general medical practice in Northern Ireland

**52,** 44A, 1993

**52,** 145A, 1993

#### Phenolic acids

Effects of phenolic acids on ruminal proteolytic bacteria **52,** 179A, 1993

### Phenotype modulation

Phenotype modulation in butyrate-treated rat colon carcinoma cell lines 52, 157A, 1993

### **Phospholipids**

Fish oil supplementation changes membrane fluidity and phospholipid profiles in humans 52, 269A, 1993

### Physical activity

Energy cost of activity in normal weight and obese women **52,** 279A, 1993

Low carbohydrate oxidation during rest: a possible mediator of weight loss in the profoundly inactive? 52, 280A, 1993

A comparison of nutrient intakes and activity levels in female aerobics instructors and beginners 52, 308A, 1993

Low intensity exercise after consumption of a high-fat meal decreases postprandial lipaemia during the recovery period 52, 309A, 1993

The use of nutritional supplements in female high exercisers 52, 311A, 1993

Between- and within-subject variability in energy expenditure during physical activity

The diet, physical activity patterns and anthropometry of a group of free-living elderly people 52, 344A, 1993

### Phytase

Phytase activity in wheat bran subjected to simulated gastric digestion 52, 57A, 1993

The effect of microbial phytase on the performance of ducks given diets with high amounts of rice bran 52, 207A, 1993

#### Plasma catecholamines

The relationship between changes in metabolic rate, haemodynamic variables and plasma catecholamine levels during acute starvation 52, 53A, 1993

### Plasma ubiquinone (Q10)

Plasma ubiquinone  $(Q_{10})$  concentrations in female vegetarians and omnivores

52, 332A, 1993

### Plate model

The plate model for dietary education

52, 19A, 1993

### **Platelets**

Effect of oral administration of an oil enriched in γ-linolenic acid in platelet aggregation and lipid composition in alcoholic patients during withdrawal 52, 196A, 1993

# Polyamine

Polyamine metabolism in enterocytes isolated from newborn pigs 52, 203A, 1993

# Polymer feeds

Effects of polymer feeds on ileal integrity as assessed by diamine oxidase release

**52,** 74A, 1993

# Polyunsaturated fatty acids

Phospholipid-2-9,12,15-linolenic acid in Gambian children with Plasmodium falciparum malaria 52, 10A, 1993

Indices of lipid peroxidation in the heart of vitamin E-deficient pigs with or without supplementation with polyunsaturated fatty acids 52, 81A, 1993

### Postprandial metabolism

Modification of postprandial substrate balance by the addition of fat 52, 236A, 1993

Influence of the intensity of prior exercise on postprandial lipaemia in man 52, 284A, 1993

Effect of the addition of guar gum to an acute test meal on post-prandial lipaemia in healthy young adults 52, 288A, 1993 Low intensity exercise after consumption of a high-fat meal decreases postprandial lipaemia during the recovery period 52, 309A, 1993

The effect in rats of intestinal intraluminal lipid on postprandial activity determined by Doppler shift radar 52, 359A, 1993

The effect of two Nigerian feeds containing nonstarch polysaccharides on postprandial blood glucose and insulin levels in healthy subjects

**52,** 377A, 1993

The effect of two types of guar gum in solid and liquid foods on postprandial blood glucose, plasma insulin and C-peptide in obese subjects 52, 378A, 1993

### Potassium

Effects of potassium depletion and repletion on growth and resting energy expenditure in the growing rat 52, 66A, 1993

### Potato starch

Factors influencing caecal butyrate in rats fed on raw potato starch 52, 376A, 1993

### **Pregnancy**

Chronic undernutrition in pregnancy and lactation 52, 19, 1993

Risk factors for intra-uterine growth retardation in Campinas, Brazil 52, 65A, 1993

The effect of pregnancy on folate catabolism in the rat 52, 85A, 1993

Evidence of energy-sparing adaptations in

Evidence of energy-sparing adaptations in Gambian women during pregnancy, assessed by whole-body calorimetry 52, 102A, 1993

Normal pregnancy: a state of insulin resistance?
Studies with the euglycaemic clamp

52, 215A, 1993

Reduced head growth from the second trimester of pregnancy to age 2 years: implication for health in adulthood 52, 216A, 1993

The recovery of labelled carbon dioxide in pregnant subjects 52, 247A, 1993

In utero exposure to maternal low-protein diets

induces hypertension in rats 52, 274A, 1993 Endogenous purine and pyrimidine derivative

excretion in pregnant sows 52, 277A, 1993 Unilateral intramammary infusion of GH does

not support a local galactopoietic action of growth hormone in goats 52, 278A, 1993

Modest in utero protein restriction modulates

responses to endotoxin in seven week old rates fed standard chow 52, 291A, 1993

Maternal manipulation of iodothyronine 5'deiodinase activity in the ovine foetus

**52**, 300A, 1993

Urea salvage and protein synthesis during pregnancy in normal English and Jamaican women 52, 302A, 1993

Factors contributing to goitre in pregnant women in Bangladesh 52, 324A, 1993

#### Premature infants

Is the antioxidant activity of premature baby plasma modulated by plasma ascorbic acid concentrations? 52, 313A, 1993

### Pressure sores

Vitamin C deficiency is associated with pressure

sores in elderly patients with femoral neck fractures 52, 79A, 1993

#### Prolactin

Response of secondary hair follicles of the Cashmere goat to prolactin in vitro.

52, 263A, 1993

### Propionate

Propionate presents effects similar to those of butyrate on HT29 cell growth and differentiation 52, 162A, 1993

### Protein deposition

Effects of overfeeding on protein-energy metabolism and body composition of high genetic potential boars 52, 297A, 1993

### Protein intake

Amino acid losses in ileostomy fluid on a proteinfree diet 52, 147A, 1993

Kinetics of the adaptation of rat pancreatic hydrolases to a high-protein diet containing soya bean and fish 52, 167A, 1993

Adaptation of the exocrine pancreas to highprotein diet in germ-free and conventional rats 52, 168A, 1993

Threonine dehydrogenase (EC 1.1.1.103) in growing pigs fed on threonine-deficient diets: effect of glutamic acid or protein addition

52, 171A, 1993

Dietary compliance and changes in the nutritional status of chronic renal failure patients on conventional low-protein diet 52, 239A, 1993

In utero exposure to maternal low-protein diets induces hypertension in rats 52, 274A, 1993

Modest in utero protein restriction modulates responses to endotoxin in seven week old rats fed standard chow 52, 291A, 1993

Does dietary protein influence resting energy expenditure? 52, 305A, 1993

Sulphur amino acids ameliorate lung inflammation in response to tumour necrosis factor α in rats fed low-protein diets 52, 339A, 1993

Substitution of low-protein for high-protein feed by broiler chickens. 52, 355A, 1993

#### Protein metabolism

Chronic malnutrition: protein metabolism

**52,** 1, 1993

Metabolic consequences of intestinal parasitism 52, 121, 1993

Nutritional supply of proteins and absorption of their hydrolysis products: consequences on metabolism 52, 335, 1993

Differential effects of dietary proteins on protein synthesis activity in several tissues of newborn lambs 52, 131A, 1993

Pancreas enlargement induced in rats by longterm consumption of dietary legume proteins 52, 137A, 1993

Proteins from different cultivars and varieties of lupins resistant to in vitro rumen digestion

**52,** 180A, 1993

The correction of metabolic acidosis in chronic renal failure reduces whole-body protein breakdown and amino acid oxidation

**52,** 257A, 1993

Protein and energy metabolism during mild zinc deficiency in adult man 52, 361A, 1993

### Protein supplementation

Effects of glycine and arginine supplementation on the metabolic response to tumour necrosis factor in rats fed low-protein diets

52, 90A, 1993

#### Protein synthesis

Differential effects of dietary proteins on protein synthesis activity in several tissues of newborn lambs 52, 131A, 1993

Adult and old rats retain sensitivity for stimulation of muscle protein synthesis by amino acid 52, 170A, 1993

In vivo protein synthesis in the developing ruminant stomach 52, 209A, 1993

Protein synthesis rates in individual tissues of critically-ill patients 52, 230A, 1993

Urea salvage and protein synthesis during pregnancy in normal English and Jamaican women 52, 302A, 1993

Modulatory effects of olive and maize oils and butter on the response of protein synthesis in liver, lung, kidney to endotoxin in rats

52, 336A, 1993

The influence of interleukin-6 (IL-6) and dietary lipids on total protein synthesis rates in cultured rat hepatocytes 52, 337A, 1993

#### Protein turnover

The non-invasive measurement of protein turnover in man: comparison of end product methods with [15N]glycine 52, 87A, 1993

Whole-body protein turnover and basal metabolism in chronic undernutrition 52, 89A, 1993

### Protein-energy malnutrition

The impact of gastrointestinal parasites on protein-energy malnutrition in man

52, 101, 1993
Long-chain triacylglycerol malabsorption and pancreatic function in children with protein-energy malnutrition complicating severe liver disease 52, 252A, 1993

#### Protozoa

Simulation of the effects of diet on the contribution of rumen protozoa to degradation of fibre in the rumen 52, 175A, 1993

#### **Psyllium**

The effects of psyllium on blood lipids in hypercholestrolaemic subjects 52, 371A, 1993

#### Purine

Endogenous purine and pyrimidine derivative excretion in pregnant sows 52, 277A, 1993

### Pyrimidine

Endogenous purine and pyrimidine derivative excretion in pregnant sows 52, 277A, 1993

### Pyruvate dehydrogenase (EC 1.2.4.1)

The ontogenic development of the active form of hepatic pyruvate dehydrogenase (EC 1.2.4.1) during the sucking-weaning transition

52, 174A, 1993

#### Quercetin

The naturally-occurring dietary flavonoid

quercetin: *in vitro* investigation of its effects on glycolytic flux 52, 95A, 1993

### Recommended intakes

A conceptual approach to the determination of upper safe limits for the consumption of micronutrients 52, 59A, 1993

#### Reduced-fat food

Nutritional implications of reduced-fat (RF) food use in free-living consumers 52, 325A, 1993

#### Renal failure

How much energy should we prescribe for patients with chronic renal failure?

52, 242A, 1993

The correction of metabolic acidosis in chronic renal failure reduces whole-body protein breakdown and amino acid oxidation

52, 257A, 1993

### Respiration

The influence of acetate and nutrient balance on ouabain-sensitive respiration in ovine liver

**52**, 56A, 1993

### Respiratory gas exchange

Effects of colonic fermentation on respiratory gas exchanges following a glucose load in man

**52,** 155A, 1993

#### Retinol

Faecal losses of retinol and α-tocopherol in subjects with cystic fibrosis and healthy controls 52, 2A, 1993

Influence of illness on serum retinol of children in northern Ghana 52, 64A, 1993

Retinol administration in neonates: are we giving enough? 52, 222A, 1993

### Retinol pigment epithelial dystrophy

Plasma vitamin E levels of dogs with retinal pigment epithelial dystrophy 52, 321A, 1993

#### Riboflavi

Effects of feeding a riboflavin-depleted diet on the morphometry of the small intestine of the weanling rat 52, 320A, 1993

Responses to riboflavin and multinutrient supplements by Gambian school children

52, 331A, 1993

#### Rice

The effect of microbial phytase on the performance of ducks given diets with high amounts of rice bran 52, 207A, 1993

### Rumen

Interactions between parasites and animal nutrition: the veterinary consequences

**52,** 113, 1993

The use of ruminal indigestible neutral detergent fibre to study intradiurnal variation of digestion and outflow of rumen dry matter (RDM) in sheep fed ad lib. on lucerne hay

52, 149A, 1993

Distribution and post-prandial variations of the activity of polysaccharide-degrading enzymes in rumen micro-organisms 52, 151A, 1993

Ruminal fermentation of neutral detergent fibre and nitrogen in legume, grass and mixtures by growing steers 52, 158A, 1993

Simulation of the effects of diet on the contribution of rumen protozoa to degradation of fibre in the rumen 52, 175A, 1993

Ribosomal DNA-targeted hybridization probes for the detection, identification and quantitation of anaerobic rumen fungi

Permanent rumen fistulas in the thoracic region in calves 52, 177A, 1993

Effects of phenolic acids on ruminal proteolytic bacteria 52, 179A, 1993

Proteins from different cultivars and varieties of lupins resistant to in vitro rumen digestion

52, 180A, 1993 Rumen osmotic pressure, water flux and volatile fatty acid (VFA) absorption in sheep

**52,** 181A, 1993

In vivo protein synthesis in the developing ruminant stomach 52, 209A, 1993

#### Rye

Cholesterol metabolism and crypt cell proliferation rates in rats in response to rye based diets 52, 373A, 1993

#### Salseed meal

Use of chemical treatments to reduce antinutritional effects of tannins of salseed (Shorea robusta) meal in diets of broiler chickens

**52,** 138A, 1993

### Scald injury

Effects of clenbuterol on tissue mass after scald injury in the rat 52, 75A, 1993

### Schistosoma mansoni

The metabolism of amino acids in mice infected with Schistosoma mansoni 52, 7A, 1993

#### School lunches

A comparison between the nutrient content of school lunches and recommendations

52, 326A, 1993

The nutrient contribution of weekday lunch in 7 to 8-year-old children 52, 385A, 1993

#### Sea-lettuce

Chemical characteristics of insoluble dietary fibre from sea-lettuce (*Ulva lactuca*)

**52**, 122A, 1993

#### Season

The effect of season and leisure activity on the energy expenditure of adult males

52, 94A, 1993

#### Selenium

Selenium and glutathione peroxidase status in preterm infants in a low Se area

**52,** 221A, 1993

Contribution of selenium content of fish on dietary intake 52, 271A, 1993

### Serum lipids

Traditional dietary intakes and serum lipids in Singapore ethnic groups 52, 14A, 1993

# Sialo-glycoconjugates

Diversity of membrane sialo-glycoconjugates in the developing porcine small intestine

**52,** 195A, 1993

### Skeletal muscle

Postnatal growth of gut and muscle: competitors or collaborators 52, 57, 1993

Cholesterol oxidation in porcine muscle as influenced by pig diet 52, 54A, 1993

Stability of vitamin E-deficient muscle plasma membrane 52, 82A, 1993

Calcium homeostasis during contractile activity of vitamin E-deficient skeletal muscle

52, 83A, 1993 Adult and old rats retain sensitivity for

stimulation of muscle protein synthesis by amino acid 52, 170A, 1993

Energy restriction affects muscle fibre area and distribution selectively during growth

52, 298A, 1993 Muscle thickness as an index of fat-free mass

#### Skinfold thickness

Prediction of body density from skinfold thickness in elderly subjects: are the existing equations valid? 52, 346A, 1993

#### Sleep

Low carbohydrate oxidation during rest: a possible mediator of weight loss in the profoundly inactive? 52, 280A, 1993

#### Small intestine

High bacterial counts in the proximal small intestine: an unexpected finding in normal cats 52, 126A, 1993

Effects of feeding a riboflavin-depleted diet on the morphometry of the small intestine of the weanling rat 52, 320A, 1993

### **Smoking**

Effect of vitamin C supplementation on the peroxyl radical trapping ability (TRAP) of plasma from female smokers 52, 80A, 1993

Cigarette smoking and intake of antioxidant vitamins: a dose-type response effect

**52,** 113A, 1993

52, 345A, 1993

Vitamin E and polyunsaturated fatty acid intake modulate the inflammatory response to cigarette smoke 52, 335A, 1993

Relationship between antioxidant vitamins and tumour necrosis factor (TNF) in smokers and non-smokers 52, 338A, 1993

# Socio-economic group

Maternal diet and social class in the East End of London 52, 18A, 1993

How effective is healthy eating advice for women from different socio-economic groups?

52, 20A, 1993 budgets for five

Modest-but-adequate food budgets for five household types 52, 42A, 1993

### Sodium nitrate

The effect of consuming the sodium salts of two weak organic acids for 5 consecutive days on acid-base status in man 52, 266A, 1993

#### Sodium tartrate

The effect of consuming the sodium salts of two weak organic acids for 5 consecutive days on acid-base status in man 52, 266A, 1993

### Soft drink

Blood acid-base and urinary excretion during chronic ingestion of a drink with acute alkalizing properties 52, 265A, 1993

### Somatostatin

Manipulation of glucose utilization in multiple organ failure using somatostatin

52, 234A, 1993

### Soya bean

Antigenic soya-bean protein digestion in the dairy calf at weaning 52, 136A, 1993 Soya-bean glycinin and β-conglycinin resistance to digestion in the preruminant calf

52, 140A, 1993 Effect of soya-bean trypsin inhibitors in the diet on trypsin activities in pancreatic tissue and ileal digesta and trypsin inhibitor activity in small intestinal digesta of piglets

**52,** 141A, 1993

Kinetics of the adaptation of rat pancreatic hydrolases to a high-protein diet containing soya bean and fish 52, 167A, 1993

Small-intestinal absorption of minerals during enteral feeding supplemented with a soyabean polysaccharide and soya-bean oligo-saccharide fibre 52, 241A, 1993

Calcium absorption from cow's milk and soya milks in young rats 52, 273A, 1993

### Starch digestion

Starch hydrolysis in the rabbit intestine and effect on fibre degradation 52, 123A, 1993

### Starvation

The relationship between changes in metabolic rate, haemodynamic variables and plasma catecholamine levels during acute starvation

**52,** 53A, 1993

The metabolic effects of acute hyperketonaemia on whole body and forearm glucose disposal 52, 281A, 1993

### Steroid hormones

Preventing steroid-associated gastric perforation with histamine<sub>2</sub> antagonists 52, 219A, 1993

### Steroid metabolism

Effect of baked beans on steroid metabolism of hypercholesterolaemic pigs 52, 164A, 1993 Faecal steroid excretion and relation to dietary intake in Indian and White vegetarians compared with white omnivores

**52,** 370A, 1993

### Sucrose fatty esters

The effect of sucrose fatty esters on metabolism of human faecal bacteria 52, 160A, 1993

### Sugar intake

Food sources of fat and sugar in the Northern Irish diet 52, 16A, 1993

The prevalence of overweight and obesity in different fat and sugar consumption groups 52, 383A, 1993

#### Surgery

Assessment of nutritional status of hospitalized general surgical patients in Ibadan, Nigeria 52, 46A, 1993

The effect of surgery and growth hormone

suppression on plasma muscle and glutamine levels 52, 70A, 1993

Permanent rumen fistulas in the thoracic region in calves 52, 177A, 1993

Histological consequences of different surgical procedures for ileorectostomy in pigs

**52,** 182A, 1993

The effect of nutritional status on interleukin-6 response to elective surgery 52, 232A, 1993

Utilization of intravenous fat in the surgical newborn infants 52, 237A, 1993

The effect of glucose intake on substrate utilization and energy expenditure in the surgical newborn infant 52, 238A, 1993

Estimation of the mass and distribution of body water in surgical patients by multiple-frequency bioelectrical impedance analysis

52, 248A, 1993

### Systemic injury

The effect of enteral glutamine deprivation on rat gut mucosa during a systemic injury response 52, 259A, 1993

#### Tallov

Response of pancreatic lipase to graded levels of dietary tallow in the weaned piglet

**52,** 144A, 1993

#### Tannic acid

Effect of tannic acid on iron and zinc absorption from a model food system in sucking rats

52, 22A, 1993

### **Tannins**

Use of chemical treatments to reduce antinutritional effects of tannins of salseed (*Shorea* robusta) meal in diets of broiler chickens

**52,** 138A, 1993

#### Tapeworm

p-Xylose absorption test for malabsorption in tapeworm-infected sheep 52, 142A, 1993

#### Taurine

Tracer investigation of taurine metabolism in cats 52, 129A, 1993

#### Taurolin

Antimicrobial activity and long-term use of Taurolin as an additive to parenteral nutrition 52, 245A, 1993

#### The Gambia

Responses to riboflavin and multinutrient supplements by Gambian school children

**52**, 331A, 1993

Changes in the diet of Mandinka women in The Gambia between 1978-79 and 1990-91: consequences for calcium intakes

**52,** 349A, 1993

### The Sir David Cuthbertson Medal Lecture

The immunological and metabolic effects of Larginine in human cancer 52, 387, 1993

### Thermic effects

Effect of changes in environmental temperature on self-selection of ascorbic acid in coloured feeds by broiler chicks 52, 29A, 1993

Responses of chronically energy deficient tropical subjects to brief cold exposure 52, 92A, 1993

Energy cost of activity in normal weight and obese women 52, 279A, 1993

#### Threonine

Threonine dehydrogenase (EC 1.1.1.103) in growing pigs fed on threonine-deficient diets: effect of glutamic acid or protein addition **52,** 171A, 1993

Effects of iodine and retinol supplementation on thyroid function in pre-school children in the Morogoro Region of Tanzania 52, 60A, 1993

### T-Lymphocytes

Interleukin-2 and T-lymphocytes in mice fed on a legume diet **52,** 135A, 1993

# $\alpha\text{-}\textbf{Tocopherol}$

Faecal losses of retinol and α-tocopherol in subjects with cystic fibrosis and healthy 52, 2A, 1993

### Total parenteral nutrition

The effects of lipids on some aspects of the cellular immune response **52,** 91, 1993

#### Transit time

The effect of dietary fibre on oro-caecal transit time in dogs **52**, 201A, 1993

The potential value of Bacillus stearothermophilus spores as a gut transit time marker

### 52, 293A, 1993

#### Tranma

The immunological effects of trauma

**52**, 85, 1993

#### Triacylglycerols

Effects of triacylglycerol structure on postprandial chylomicron triacylglycerol clearance 52, 52A, 1993

The effect of triacylglycerols on lymphocyte proliferation 52, 55A, 1993

Long-chain triacylglycerol malabsorption and pancreatic function in children with proteinenergy malnutrition complicating severe liver disease 52, 252A, 1993

Superior absorption of medium-chain triacylglycerols compared with conventional dietary long-chain fats in children with chronic liver disease **52**, 253A, 1993

The effect of test meal fatty acid composition on postprandial triacylglycerol and lipoprotein lipase responses in normal subjects

52, 283A, 1993

#### Trichostrongylus colubriformis

The effect of subclinical parasitism with Trichostrongylus colubriformis on the diet selection of growing sheep **52,** 353A, 1993

### Trypsin inhibitors

Effect of soya-bean trypsin inhibitors in the diet on trypsin activities in pancreatic tissue and ileal digesta and trypsin inhibitor activity in small intestinal digesta of piglets

**52,** 141A, 1993

52, 130A, 1993

### Tryptophan

The chronic and acute effects of tryptophan (TRP) on hormones of the enteroinsular axis

### Tumour necrosis factor a

Effects of a 4-week dietary fat feeding trial on the

metabolic responses to tumour necrosis factor α in rats **52,** 67A, 1993

Increased TNF production does not correlate with cachexia in chronic inflammatory bowel **52,** 71A, 1993

Effects of glycine and arginine supplementation on the metabolic response to tumour necrosis factor in rats fed low-protein diets

**52,** 90A, 1993

Infusion of the lithium salt of γ-linolenic acid into pancreatic cancer patients increases thymidine uptake and induces tumour necrosis factor release by peripheral blood mononuclear cells

52, 244A, 1993

Relationship between antioxidant vitamins and tumour necrosis factor (TNF) in smokers and non-smokers 52, 338A, 1993

Sulphur amino acids ameliorate lung inflammation in response to tumour necrosis factor a in rats fed low-protein diets 52, 339A, 1993

### Tyrosine

Tyrosine metabolism in premature babies: effects of vitamin C intake 52, 78A, 1993

#### Undernutrition

Vitamin undernutrition **52,** 143, 1993 Micronutrient undernutrition in British schoolchildren

**52,** 155, 1993 The behavioural effects of undernutrition in confined farm animals **52**, 219, 1993

Chronic undernutrition and metabolic adaptation **52**, 267, 1993

Behaviour of stunted children and the relationship to development 52, 36A, 1993

Linoleic and α-linolenic acid oxidation during undernutrition: are they important in energy metabolism? 52, 47A, 1993

Whole-body protein turnover and basal metabolism in chronic undernutrition 52, 89A, 1993

Does chronic undernutrition in adult Masai influence morbidity and survival?

52, 107A, 1993

Factors associated with undernutrition in preschool Tanzanian children

52, 109A, 1993 Undernutrition in drug addicts. Immunological study 52, 261A, 1993

### Urea kinetics

Urea kinetics in healthy young women

52, 88A, 1993

Urea salvage and protein synthesis during pregnancy in normal English and Jamaican 52, 302A, 1993

Urea kinetics in free-living female vegetarians measured with a single-dose method

52, 341A, 1993

### Validation study

The non-invasive measurement of protein turnover in man: comparison of end product methods with [15N]glycine **52,** 87A, 1993

### Vegetable intake

Fruit and vegetable consumption in north

Glasgow: some results from the MONICA study of 1986 and 1989 52, 12A, 1993

### Vegetarians

A preliminary report on dietary intake and anthropometry of vegetarian children compared with omnivores 52, 13A, 1993

Plasma ubiquinone (Q<sub>10</sub>) concentrations in

female vegetarians and omnivores **52,** 332A, 1993

Urea kinetics in free-living female vegetarians measured with a single-dose method

52, 341A, 1993

Faecal steroid excretion and relation to dietary intake in Indian and White vegetarians compared with white omnivores

**52,** 370A, 1993

### Very low birth weight

Blood pressure fluctuations and cerebral outcome in very low birth weight (VLBW) babies

52, 226A, 1993

#### Virginiamycin

Effect of Virginiamycin on the precaecal apparent digestibility of the major nutrients comparing a diet with high and low precaecal digestibility in pigs 52, 212A, 1993

#### Vitamin A

The role of zinc and vitamin A deficiency in diarrhoeal syndromes in developing countries

**52,** 131, 1993

Vitamin A levels in a sample of Irish animal livers 52, 58A, 1993

### Vitamin B<sub>6</sub>

Lack of concordance between two biochemical indices of vitamin B<sub>6</sub> nutritional status

**52,** 315A, 1993

### Vitamin C

Tyrosine metabolism in premature babies: effects of vitamin C intake 52, 78A, 1993

Vitamin C deficiency is associated with pressure sores in elderly patients with femoral neck fractures 52, 79A, 1993

Effect of vitamin C supplementation on the peroxyl radical trapping ability (TRAP) of plasma from female smokers 52, 80A, 1993

Plasma vitamin C concentrations in critically ill

Plasma vitamin C concentrations in critically ill patients 52, 314A, 1993

# Vitamin E

Indices of lipid peroxidation in the heart of vitamin E-deficient pigs with or without supplementation with polyunsaturated fatty acids 52, 81A, 1993

Stability of vitamin E-deficient muscle plasma membrane 52, 82A, 1993

Calcium homeostasis during contractile activity of vitamin E-deficient skeletal muscle

Vitamin E status modulates the inflammatory response to endotoxin in rats 52, 84A, 1993 Estimates of the vitamin E requirement in rats fed long-chain n-3 fatty acids 52, 319A, 1993

Plasma vitamin E levels of dogs with retinal pigment epithelial dystrophy 52, 321A, 1993 Vitamin E and polyunsaturated fatty acid intake

modulate the inflammatory response to cigarette smoke 52, 335A, 1993

### Vitamin status

Vitamin undernutrition 52, 143, 1993 Antioxidant vitamin status, lipid peroxidation,

Antioxidant vitamin status, lipid peroxidation, and indices of nitric oxide production in patients with sepsis and secondary organ dysfunction 52, 334A, 1993

#### Volatile fatty acids

Rumen osmotic pressure, water flux and volatile fatty acid (VFA) absorption in sheep

52, 181A, 1993

#### Water flux

Rumen osmotic pressure, water flux and volatile fatty acid (VFA) absorption in sheep

52, 181A, 1993

#### Weaning

Influence of the weaning diet on the changes of glucose metabolism and of insulin sensitivity 52, 325, 1993

Iron deficiency in Asian toddlers and the failure of progression of the weaning process

**52,** 103A, 1993

Antigenic soya-bean protein digestion in the dairy calf at weaning 52, 136A, 1993
Response of pancreatic lipase to graded levels of dietary tallow in the weaned piglet

52, 144A, 1993 The ontogenic development of the active form of

hepatic pyruvate dehydrogenase (EC 1.2.4.1) during the sucking-weaning transition

**52,** 174A, 1993

Developmental changes in intestinal glycoprotein glycosylation; relationship with diet changes at weaning and hormonal variations

**52**, 189A, 1993

Nutritional composition (by chemical analysis) of home-prepared weaning foods for infants

52, 384A, 1993

#### Weight change

Causes of weight loss in Human Immunodeficiency Virus infection 52, 3A, 1993

Raised metabolic demands for energy may contribute to weight loss in institutionalized psychogeriatric patients 52, 45A, 1993

An acute-phase protein response is associated with increased resting energy expenditure in weight-losing patients with either benign or malignant pancreatic disease 52, 240A, 1993

Patterns of weight change in stage IV HIV infection 52, 246A, 1993

The changes in body weight and in body composition, estimated using bioelectrical impedance analysis over 72 h of fasting; comparison with estimates based on energy expenditure measured by indirect calorimetry

**52,** 251A, 1993

Low carbohydrate oxidation during rest: a possible mediator of weight loss in the profoundly inactive? 52, 280A, 1993

#### Wheat

The nutritive value of different wheat varieties for poultry 52, 206A, 1993

Effect of wheat bushel weight and enzyme supplementation on the apparent metabolisable energy content of diets and on broiler performance 52, 360A, 1993

Whey proteins

Analytical characterization by reverse-phase HPLC of products obtained by *in vitro* enzymic hydrolysis of whey proteins with gastric and pancreatic proteases

**52,** 148A, 1993

Work output

The influence of dietary creatine supplementation on work output and metabolism during repeated bouts of maximal isokinetic cycling in man 52, 362A, 1993

Xenograft

Programming of expression of disaccharidases in the neonatal small intestine: use of a xenograft model 52, 210A, 1993

### D-Xylose

D-Xylose absorption test for malabsorption in tapeworm-infected sheep 52, 142A, 1993

#### Zinc

The role of zinc and vitamin A deficiency in diarrhoeal syndromes in developing countries 52, 131, 1993

Effect of tannic acid on iron and zinc absorption from a model food system in sucking rats

**52**, 22A, 1993

The effect of dietary fibres on iron and zinc absorption in sucking rats 52, 23A, 1993

Assessment of exchangeable pools of zinc using the stable isotope 70zinc 52, 24A, 1993

Zinc supplementation in young Gambian children 52, 25A, 1993

Protein and energy metabolism during mild zinc deficiency in adult man 52, 361A, 1993